MAY 12, 1952 NEWS ISSUE

Electrical World

Price 35 Cents A McGRAW-HILL PUBLICATION

PUAA's Paul Penfield: He plans to integrate the advertising . . . Page 29

Atlantic City Electric Co Expands Its Territory . . . Page 22
Utilities Will Increase Pay . . . Page 50

CONDAL—NEW ALUMINUM ALLOY—solves problem in large generator rotor windings, and saves copper at the same time. Lighter weight reduces centrifugal forces, permitting larger 3600-rpm rotors. Above, H. D. Taylor, manager of generator engineering, and C. E. Kilbourne, electrical engineer of G-E Turbine Div., study section of Condal winding and cutaway rotor model in connection with industry's first 3600-rpm generator rated above 200,000 kva—due for August shipment. Condal was developed in G-E Research Laboratory.

What about aluminum in power equipment?

Research finds some new applications—from lamp bases to largest generator rotor

With expansion forcing copper demands to new peaks, the electrical industry is vitally concerned with conservation of this most important metal.

To what degree can aluminum contribute? Some answers have already been supplied by General Electric research. In certain applications, aluminum has not proved practicable, but in others offers definite advantages that assure it a permanent place in future equipment. New methods of silver plating have helped solve problems of application and operation.

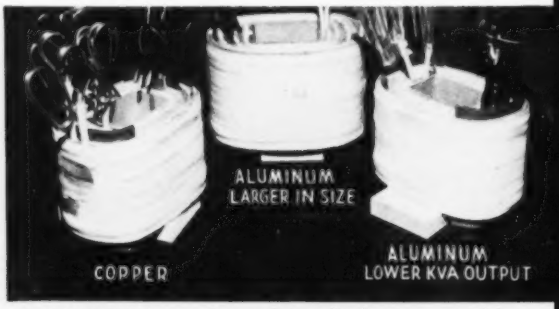
Creative engineering will find future applications for aluminum and its alloys that will insure the same dependability and efficient performance of copper. But each new application will require extensive engineering study and analysis.

In electric utility equipment, these factors of research, design and practical application will continue to govern General Electric's use of aluminum. General Electric Co., Schenectady 5, New York. 301-185

MORE POWER TO AMERICA

GENERAL ELECTRIC

ALUMINUM CAN NOW BE SILVER-PLATED—making first possible application in isolated phase bus. With high quality silver-to-silver joints now possible, plans for largest bus ever built (8000 amp.) using aluminum conductor are discussed by C. E. Burke, manager of marketing, and V. L. Cox, engineering manager of G-E Switchgear Dept. Switchgear laboratory developed new silver-plating technique.



USE OF ALUMINUM in transformers brings disadvantages outweighing benefits of copper conservation. For same output as 25-kva copper winding (left) experimental aluminum coil (center) is larger, requires more core steel, generally a larger tank, more weight. Winding (right) same size as copper produces less kva.

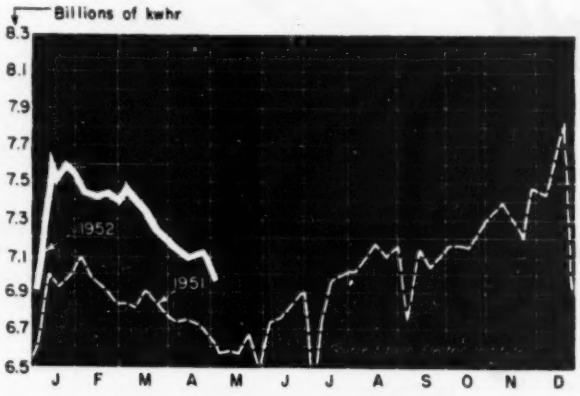
ALUMINUM LAMP BASE does not tarnish, has good conductivity. New alloy was required.

WASHING MACHINE motor, wound with aluminum, is now in regular production.

VOLUME 137, NO. 19

May 12, 1952

Electrical World



Output Week Ended May 3—6,985,000,000* Kwhr

Per Cent Change From Previous Year

	Total US	New Eng.	Mid. Atlan.	Cent. Ind.	West Cent.	South-east	South Cent.	Rocky Mount.	Pacific NW	Pacific SW
May 3	+6.5*	(Data on regional change not available at press time)								
April 26	+6.9	+3.5	+6.0	+4.2	+5.5	+13.5	+16.3	+4.1	+4.1	+3.1
April 19	+5.6	+4.4	+2.5	+3.1	+5.6	+12.5	+15.9	+5.9	+6.4	−2.1

Electric Power Statistics

		Latest Month	Preceding Month	Year Ago
Peak Load (Million Kw)	Feb.	64.8*	69.0	62.4
Capacity (Million Kw)	Feb.	75.99	75.97	69.42
Production (Billion Kwhr)	Feb.	31.54	34.20	28.22
Hydro		9.46	9.90	8.21
Fuel		22.07	24.30	20.01
Fuel Consumption				
Coal (Million Tons)	Feb.	8.74	9.87	8.59
Oil (Million Barrels)		4.77	6.07	5.57
Gas (Billion Cu Ft)		54.82	52.27	40.50
Sales (Billion Kwhr)	Feb.	29.08	29.72	26.50
Residential		8.51	8.87	7.58
Commercial		4.87	4.99	4.89
Industrial		13.82	13.90	12.64
Other		1.88	1.95	1.79
Net Income Class A & B Companies ($ Million)	Feb.	88.00	86.59	80.33
Estimated Dec. 52 Peak (Million Kw)*	Feb.	80.5	80.6	78.0
Kwhr per Residential Customer (12 Month Average)	Jan.	2,021	2,004	1,848
Revenue per Kwhr Residential Service (12 Month Average)	Jan.	2.81¢	2.81¢	2.87¢
Canadian Production (Billion Kwhr)	Feb.	4.97	5.27	4.38

Business Statistics

		Latest	Preceding	Year Ago
FRB Industrial Production Index†††	Mar.	217*	218	219
Gross National Product Annual Rate ($ Billion)	1st Qtr.	339.0*	334.6	319.5
E. W. 5 Industry Production Index	Mar.	124.4*	124.3	121.6
ENR Construction Cost Index††	April	116.2	115.4	112.9
BLS Consumer's Price Index	Mar.	188.0	187.9	184.5
NEMA Insulation Materials, Sales Index†	Feb.	528	548	552
NEMA Electric Appliance Sales Index†	Feb.	224	233	343
NEMA Household Refrig. Sales Index†	Feb.	153	153	238

* Estimated. † 1936=100 †† 1949=100 ††† 1937-39=100 (Unadjusted)

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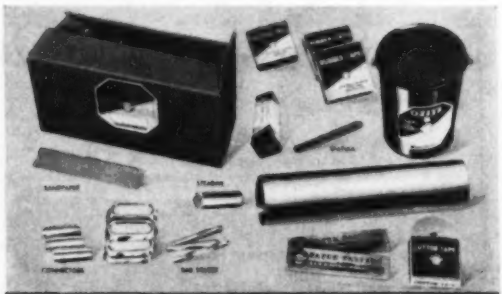
WHEN ORDERING
HIGH VOLTAGE
CABLE SPLICING
MATERIALS SEPARATELY . . .

you're Wasting Time

. . . IF YOU GO
THROUGH ALL OF
THESE STEPS WHEN
ONE WILL DO

1. design the joint
2. figure bill of material
3. issue requisitions to purchasing department
4. find sources of supply for each item
5. secure quotation and delivery on each item
6. place order for each item
7. receive material and assemble
8. issue material to cable splicers



THE G & W SPLICING KIT *is the* TIME SAVING WAY

Simply give us complete cable data and you receive a neat package with adequate quantities of all materials for a properly designed joint.

You save time and money because . . .

No lengthy material specifications are necessary.

Both design and installation methods can be standardized.

All joints are properly designed to industry standards by expert cable engineers.

All splicing materials are purchased from one source.

Each kit packed in convenient size box. Easy to store, identify and handle.

Individual kits issued directly to workmen in original shipping cartons.

Easy to quickly estimate costs for any particular job.

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THE ELECTRICAL WEEK

Featured In This Issue

Leland Olds and Leslie Miller debate water resource development at forum sponsored by Chamber of Commerce (p 7) . . . Otter Tail Power Co has a new president (p 9) . . . Public power organizes and REA reorganizes (p 10) . . . Distribution symposium featured at Northeastern AIEE meeting (p 15) . . . General Electric graduates 17 new "Doctors of Lumenology." (p 16) . . . Atlantic City expands its service area (p 22) . . . Paul Penfield heads PUAA (p 29) . . . Utilities are expected to increase pay scales (p 50).

• • •

Latest from Washington—American G&E along with some eight or nine other utilities has submitted a preliminary proposal to AEC for supplying the 1.8 million kw which will be needed if Congress authorizes a new gaseous diffusion plant (EW, April 21, p 110) . . . Sacramento, Calif., Municipal Utility District has applied for a preliminary permit for a proposed hydro development in Eldorado County . . . Interior Department is recommending construction of a $13.5 million power dam with an installed capacity of 13,500 kw at Swan Lake in Alaska . . . Energy production by hydro plants hit a new monthly high in March of 10.4 billion kwhr, FPC reports . . . In obtaining assistance in procurement of authorized controlled materials, electric utilities are requested to use form DEPA-20 only after every reasonable effort to get such material is exhausted. A separate filing of this form is required for each item including both materials and B products whether they are needed for major plant additions or minor requirements.

From South Atlantic—Consolidated Gas, Electric Light & Power Co of Baltimore is planning to replace 2,000 gas street lights annually with mercury lights.

From the Southeast—For every dollar REA spends for power lines, local merchants sell $4.50 in electric equipment, REA officials say . . . For third time in six years Georgia Power is awarded first place trophy for leading all electric companies in its class of accident-prevention . . . Tennessee's Governor Browning directs PUC to determine whether five Shelby County municipalities should tax facilities of Memphis Light, Gas & Water Division.

From West South Central—In news conference, Arkansas' Governor McMath declares that advertising funds spent by private utilities for political purposes and presenting rate increases should be barred from rate bases established for the utilities.

From the Far West—Hoover Dam powerhouse stepped up its capacity by 82,500 kw last week when Arizona's new generator went on the line. A second, new nearly complete, will start delivering energy in June . . . Seattle City Council adopts new 470-page electrical code which has been under study for past two years . . . Pacific G&E paid taxes in 1951 at the rate of $2.09 per second, totaling $65.9 million.

Financial—Missouri P&L gets FPC approval to take over all of Missouri electric facilities of Western L&T for about $212,000. Company invites bids for purchase of its water system in Excelsior Springs . . . Blyth & Co places privately 306,680 shares of Pacific G&E 5% dedeemable first preferred stock, $25 par at $26 per share.

Labor—Wage Stabilization Board approves 4.19% wage increase for employees of Kansas City P&L . . . Public Service E&G and AFL IBEW agree to 7½% wage increase . . . International Union of Electrical Workers, CIO, breaks off negotiations with General Electric Co. It has called an "emergency meeting" of its conference committee for May 14 to consider a strike.

Litigation—Massachusetts Supreme Judicial Court has declared unconstitutional legislation proposed to prohibit introduction of new evidence in appeals to higher tribunal from decisions of state utilities commission. Restriction of courts to question of law thus goes overboard.

Rates—Hartford Electric Light asks Connecticut PUC approval for its first general rate increase in 30 years. New rates will mean but 2¼¢ more daily for average residential user of 152 kwhr per month . . . District Court Judge Alexander Holtzoff upholds the March 20, 1951, $2.6 million rate boost of Potomac Electric Power authorized by District of Columbia's PUC.

Depa fears that 38 units (3 million kw will "slip" into 1953. This will make it difficult to handle the December peak because even if all were on schedule expected reserve is only 8%, lowest in four years, Depa Administrator Fairman told the American Public Power Association at Seattle . . . J. Frank Ward, Tacoma City Light superintendent and president of association, declared that private utility groups had been responsible for various efforts to saddle additional taxes on public power operations . . . Many eastern municipal plants are hoping for cheaper power through proposed St. Lawrence Seaway project, Carroll A. Oliver, chairman, Taunton, Mass., Municipal Lighting Commission declared.

Governors of Washington, Oregon, and Idaho are siding with Idaho Power Co in their efforts "to maintain a monopoly on power in southern Idaho," Owen W. Hurd, president of Northwest Public Power Association tells his group at its annual convention. He criticized position of governors on opposing proposed Hells Canyon Dam.

Congratulations—Westinghouse Electric elects following vice presidents: W. W. Sproul, L. B. McCully, and H. E. Seim . . . Stone & Webster Canada, Ltd, elects Leonard L. Youell, vice president.

THE ELECTRICAL WEEK

CONTINUED

More from Washington—Supreme Court has agreed to review case in which Interior is seeking to void FPC license granted Virginia E&P for a hydro plant near Roanoke Rapids, N. C. . . . Work disruptions at steel plants are already hitting boiler manufacturing schedules . . . Representatives of diesel engine manufacturers have turned down a proposal by NPA which would relieve them of submitting their order boards to the agency . . . SEC sets hearing June 18 on North American's dissolution plan.

Pacific Northwest faces severe power shortages during next eight years unless new federal projects are launched promptly, Bonneville Power Administrator Paul Raver says.

Southern Co asks SEC approval to offer 1,004,510 common shares to its stockholders of record June 19 to expire July 10 on 1-for-16 basis . . . Federal Reserve Board abandons its voluntary credit-restraining program in "light of current circumstances."

IN THE INDUSTRY

Last week the most discriminating and critical judges of the electric utility industry sat at San Francisco. The occasion was the annual meeting of the National Federation of Financial Analysts Societies. Before this panel, whose decisions have so much to do with the financial future of the industry, executives of Pacific Coast companies pleaded their case.

James B. Black, president of Pacific Gas & Electric Co, presented the main argument of the companies. "In our opinion," he said, "there is no occasion under present Congressional policy to have misgivings as to our ability to live with them (federal power projects)."

Federal Projects Not So Big . . . The relative magnitude of federal power projects in California tends to be overemphasized, he continued. In 1950 and 1951 PG&E added 950,000 kw of capacity. This is one and a half times the rated capacity of present and proposed Central Valley Project power plants. By the end of 1954 the company expects to have a capacity of 4,150,000 kw. This will then approximate the combined installations, constructed and authorized, of all the great government projects on the Pacific Coast—Grand Coulee, Bonneville, Shasta, and Hoover.

Speaking for the Pacific Northwest, Thomas W. Delzell, chairman of the board of Portland General Electric Co. expressed regret that misconceptions about the position of the utility industry in the area had resulted in some downgrading of its stocks. Western Washington is the only strongly public power area. No public utility district has been created in the Northwest in the last 12 years. Northwest utilities are finding they are able to live with municipal and federal power. They are not only holding their own but are moving forward, improving their financial position.

Recent Developments Strengthened Private Power . . . Five recent developments testify to the strengthening position of private power in the Northwest:

1. Five utilities in the western group of the Northwest Power Pool have succeeded in obtaining five-year contracts with the Bonneville Power Administration.
2. Depa last September set up orderly and fair procedures for load curtailment in case of power shortages. This eased the previous problems resulting from BPA's preference contracts.
3. Both Oregon and Washington regulatory commissions have agreed to allow surcharges for excess costs necessitated by use of steam generation in short power periods.
4. Pacific Power & Light and Washington Water Power have been freed from holding company control.
5. Private utilities are indicating their willingness to install capacity. Now under construction are facilities adding some 700,000 kw.

The judges reserved their decision. The financial community knows that market prices of securities of the West Coast electric companies are behind the market. So it may be interesting to watch what happens to them in coming months. In that way alone will the industry find out the decision of the judges.

TECHNICAL NOTES

ARCHER E. KNOWLTON

High-molecular-weight fluorocarbons are chemically inert and thermally stable. Some of them may be used for vaporcooling (heat of vaporization) and vapor insulation of transformers.

Group feeder regulation (2 feeders per transformer) appears to cost about 2/3 as much as regulation of individual feeders.

Simultaneous tripping is a desideratum which microwaves will help facilitate.

Bunker size is being increased in some new plants to hold coal enough for the week-end. Added insurance is afforded incidentally against failure of a single-conveyor system.

Wye-wye distribution systems offer the opportunity to use autotransformers with economic advantage.

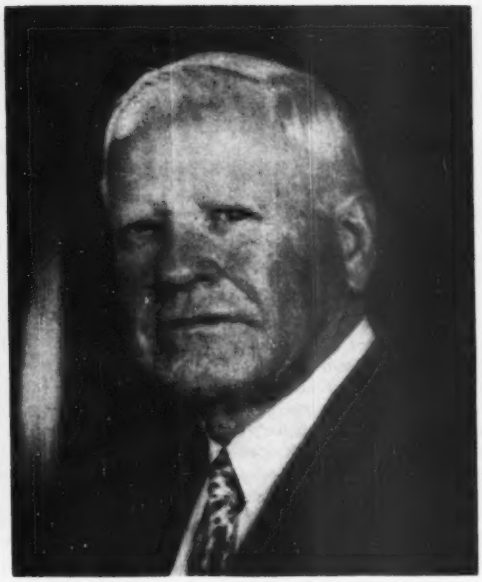
Generator coil breakdown can result from insulation deterioration if the coil surface is not in contact with the slot surface. Otherwise capacitive discharges will do the damage.

Difficult to cover with protective rubber on the pole;—the ground down-lead, bolt through pole, guy wire, secondary rack.

Capacitor dielectric strength is likely to be erratic unless the dielectric layer consists of at least four thicknesses of paper.

Tubular members may be bent if overstrained in pulling stumps or old poles (better use jacks for such jobs). A poorly straightened tube may cause injury by buckling under otherwise normal loads.

Pitting Leland Olds . . .



. . . against Leslie Miller . . .

. . . produces a surprising result as

Chamber Stages a Water Debate

When two old campaigners like Leland Olds and Leslie Miller step up to the same platform to debate water resources policy, you'd expect them to start at the middle and proceed rapidly toward opposite poles.

Olds, now a member of the Department of Interior, was the guiding genius behind the federal basin agency plan drawn up by the President's Water Resources Policy Commission. Miller, former chairman of the Hoover Commission task force on natural resources, is now a member of the Chamber of Commerce's resources committee, which strongly opposes the federal basin agency concept.

But when the two stepped up to the rostrum at the Chamber's recent forum on resource development in Washington, they found there were wide areas on which they could agree. Both said the federal government had to cooperate with state and local governments in getting the job done. Their differences lay in the matter of method:

● Olds said the federal government should have the chief responsibility for development of natural resources, with active assistance from state and local agencies.

● Miller said the states and local areas directly involved should work out development plans, with active assistance from the federal government.

Federal Man Olds

"Federal responsibility," Olds said, "is not an either/or proposition with state and local responsibility in developing our water resources. My answer is that the people should develop the water resources."

Leadership in conserving resources must be in federal programs, he said, providing the widest basis for cooperation of local and state agencies but assuring a coordinated program for entire basins directed at well-defined objectives. The United States, he said, is in a stage of resource contraction, and thus the federal government's responsibility to conservation is tremendous.

"Today," Olds said, "we are quite generally aware that our natural resources are deteriorating, that demands are increasing, and that continuation of present practices will place our standard of living and our national security in jeopardy."

Solution of the problem, he pointed out, requires capital, organization and technology. They must be applied to natural resources to stop or slow down the processes of destruction and shift the balance as rapidly as possible from resource-consuming to resource-conserving usage, he added.

The first approach, Olds said, calls for public restraint on private waste of natural resources, and the second, for positive intervention of government to direct capital away from resource-consuming into resource-conserving investments.

Federal Plans . . . The PWRPC, he said, has made practical recommendations to carry out this "positive intervention" through a federal resources investment program. This, he said, would not supercede conservation activities of state and local governments and agencies, but would implement the activities of each and provide a general program in which all would participate.

Such federal programs in the past have stimulated expansion of regional and state activity, strengthening these groups and developing regional private enterprise, he asserted.

"If a (river) basin is to yield maximum benefits for all beneficial uses, all functions must be developed in accordance with multipurpose plans. This calls for central planning and direction, and the planning function must go hand in hand with the investment function."

The members of the water resources policy commission, Olds said, were all strongly in favor of the greatest possible local and state participation in river basin development. They doubted, however, whether governmental agencies exercising less than federal authority would deal effectively with resource problems where river basins are interstate in character.

Hydro Goal . . . One of the essential objectives of the river basin program, he said, is to assure maximum use of the country's hydroelectric possibilities. This should be done, he added, in such a way as "to give localities full opportunity to undertake public or cooperative distribution of electricity wherever and whenever the people become convinced that monopoly power costs and policies are imposing unwarranted burdens on farm and residential use or on commercial and industrial expansion."

States' Man Miller

When it came his turn to talk, Miller, a former governor of Wyoming, said, "I find myself in agreement with much of what Mr. Olds has said. I think the President's commission did a fine job. It produced a report weighty in pounds and also in recognition of the problems involved." Then he went on to make some reservations.

Since some states will definitely benefit more than others in development of water resources, he said, the benefiting states must share to some reasonable extent in the costs and planning of the developments.

"Both the Hoover Commission and the PWRPC," he said, "stressed the importance of drainage basin planning for water development. This does not mean valley authorities. It does mean that where four, six, or eight states may be included in a drainage basin the plans should take into effect fundamental conditions which apply to the entire basin.

"But the plans should have the approval of representatives of the states involved, representatives who would have full voting authority, in the democratic manner. State laws should be observed to every practicable extent; indeed if state contributions to water development are to be required, this will be imperative."

Miller said he felt all possible water development should be undertaken by private enterprise. But, he said, in many Western states where great sums are spent on water projects, 30 to 50% of the land is federally owned. In these states, he said, water resource development must be the responsibility of the federal government. And in cases where huge multi-purpose projects are beyond the ability of private enterprise to finance, initial federal financing is the only recourse, he added.

Lauds Commission . . . The PWRPC, Miller said, did a good job in recommending a system for distribution of costs.

"I stated my conviction," he concluded, "that private enterprise should finance water development wherever feasible and I deplore and protest the current attempts of the Department of Interior to preempt development for electric energy production possibilities on many streams of the nation."

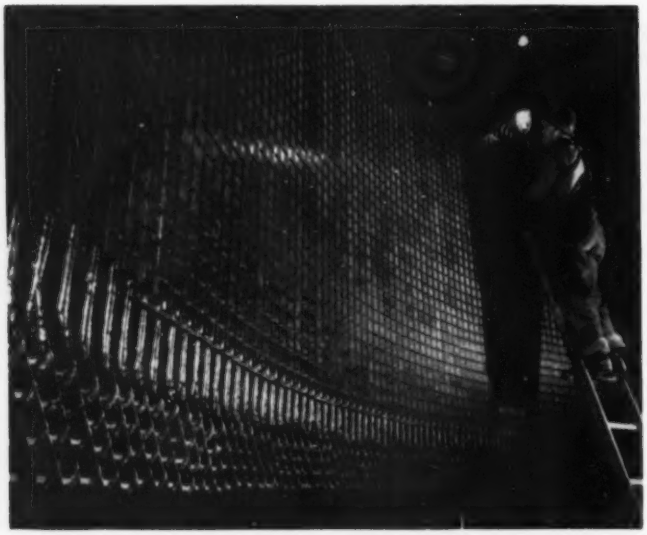
Industry Man Sutton

Louis V. Sutton, president of Carolina Power & Light Co, echoed that last from Miller in a panel discussion that followed the two talks.

He admitted that stream control may involve the federal government, but said he thought water resource development could best be accomplished by private interests rather than governmental edict.

"The idea that Interior can preempt all river business, even challenging the authority of the Federal Power Commission," he said, "violates the American way of life.

"Every move is part of a well-organized plan to socialize the electric power industry."



Stator Sections Set at Hungry Horse

Production of power at Bureau of Reclamation's Hungry Horse Dam in northwestern Montana moved nearer realization as General Electric Co workmen completed setting of four 38-ton stator sections for the first 71,250-kw generator. Millwright foreman checks alignment of the large generator sections.

The first Hungry Horse generator will start operating in October. The second unit is scheduled to go on the line in December and the third and fourth in August and November of 1953.

NEW OFFICERS of Otter Tail Power Co exchange congratulations. They are Cyrus G. Wright, right, who is now president of the firm and Albert V. Hartl, vice president and treasurer

Founder's Son Heads Otter Tail

Cyrus G. Wright is newly elected president of utility at Fergus Falls. A. V. Hartl becomes a vice president

With 25 years of service behind him, Cyrus G. Wright brings wide experience to his new position as president of Otter Tail Power Co, Fergus Falls, Minn. He succeeds Thomas C. Wright, who has been named chairman of the company's board of directors.

A son of Vernon A. Wright, founder of the company and for many years its president, the 48-year-old president learned the utility business from the bottom up. He began his career with Otter Tail in 1927 as a clerk figuring comparisons in the company's municipal sales department. After five years in the accounting department and as general office cashier, he was transferred to Bottineau, N. D., where for two years he served as local superintendent.

Returns to General Office . . . In 1934 C. G. Wright went to Morris, Minn., as assistant district manager and in 1936 was transferred back to the firm's general office. Shortly afterward he was elected to the board of directors and made a vice president of the company.

As vice president of operations and general manager, he became chief executive officer of the company in 1945.

Wright is a native of Fergus Falls. He attended schools at St. Paul, and Andover, Mass., before entering Harvard University.

Likes to Hunt . . . Wright is married and has four children. His spare time activities include hunting, his favorite sport. He is also active in the Fergus Falls Kiwanis Club.

The post of board chairman which T. C. Wright fills has been vacant since the death of V. A. Wright in 1938. The chairman will make his headquarters in Minneapolis, but will divide his time between Minneapolis and Fergus Falls. He will work on financial problems, on contracts between the company and its security holders, and on other matters.

In other executive changes Albert V. Hartl was promoted from secretary and treasurer to vice president and treasurer and Harry C. Johnson from comptroller to secretary and comptroller.

POWER BRIEFS

● A campaign to get people to use less electricity on Sunday nights has the approval of Potomac Electric Power Co. The current issue of the utility's magazine carries a picture of the bulletin board of a Baptist church which reads: "Save on Your Electric Bill. Come to Church Sunday Night." Beneath the picture Pepco commented: "Needless to say, loss of revenue for this reason would be endorsed by any electric utility."

● An abnormally dry spring has forced Tacoma (Wash.) City Light to buy an increased amount of power from Bonneville Power Administration. Total rainfall during the first four months of this year has been little over 7 in., about half of normal. Purchases from Bonneville so far have cost the municipal system $200,000, compared with $80,000 last year.

● Winter and spring storms are piling up runoff in the six dams of the Salt River Valley Power District in central Arizona. Dams have a capacity of 2,076,713 acre ft. Reservoirs provide hydro generation at four dams with a capacity of 68,000 kw. Adequate storage will ease the system's operation of higher-cost steam and diesel plants.

● Czechoslovakia's Communist government has ordered a nation-wide reduction in the use of electricity. Western observers believe the order was caused by failures of the Czech coal industry to reach production quotas.

● Export of natural gas from southern Alberta to the United States and eastern Canada may come sooner than expected, according to Mines Minister N. E. Tanner. He recently said that if development of gas reserves does not slacken, the government may permit export from the Pincher Creek field "comparatively soon." Export of gas from these fields is banned by the government on recommendation of the Petroleum and Natural Gas Conservation Board, which did not see a surplus in the area for some time.

● Indonesia's cabinet has announced plans to nationalize electric power companies still in Dutch hands.

Public Power Forming Lobby

Groups headed by NRECA, APPA schedule Washington meeting to discuss organization plans. Truman tentative speaker

Plans for organization of a consolidated public power lobby will be unrolled at a conference in Washington May 26-27. The conference will be attended by representatives of a number of public power, farm, and labor organizations.

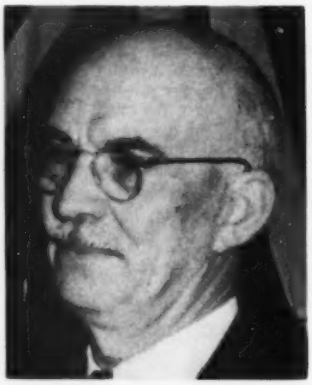
President Truman tentatively has agreed to address the meeting and is expected to give a repeat of his message delivered to the National Rural Electric Cooperative Association in Chicago earlier this year (EW, March 24, p 106).

Lincoln to Be Chairman . . . Murray Lincoln, president of the Farm Bureau Insurance Companies, the Cooperative League, and CARE, is slated to be chairman of the meeting, to be known as the Electric Consumers Conference. Morris L. Cooke, chairman of the President's Water Resources Policy Commission and former Rural Electrification Administration chief, is to be the vice chairman.

Sponsoring organizations include NRECA and the American Public Power Association. Other groups to be represented include the American Federation of Labor and the Congress of Industrial Organizations, the National Farmers Union, the Tennessee Valley Public Power Association, and the American Council of Cooperatives. Farm Bureau and the Grange also will probably send observers to attend the Washington conference.

Providing a Forum . . . Stated purpose of the conference is to "provide a forum at which consumer interest in electric power can be expressed." The National Farmers Union says the conference is being called "to launch a counter-attack against the powerful profit utility lobby, which has quietly whittled away the strength of the non-profit power movements. . . ."

Some of the men who have been consulted on planning the conference are confident the main objective will be to organize one vast public power pressure group and lobby. Clyde T. Ellis, executive manager of NRECA, and Alex Radin, general manager of APPA, are heading the working committee on program arrangements.



MURRAY LINCOLN

Campaign Fodder . . . Besides providing campaign fodder for the November elections, the conference also will probably seek to influence legislation on power policy during the next session of Congress.

Sponsoring organizations have hired Charles D. Watkins, an old-time Washington newspaper man, who worked for a short time with Interior, to do publicity work for the parley.

Rural Electrification Work of REA Being Curtailed

Rural electrification work of the federal government is being curtailed as emphasis shifts to farm telephone loan activities.

For the Rural Electrification Administration, which handles both loan programs, this means a major reorganization and a shift of personnel. Plans call for the change to be made about July 1.

At its peak in 1942, REA's electric loan program was employing about 1,350 workers. The figure was not far different for the fiscal years 1950 and 1951. Under the planned change, electric power loan personnel will be down to about 700.

Within the agency, the personnel shift will mean that the telephone program will be given equal standing with the electric loan program.

Work Nears Completion . . . Main reason for the change is that the bulk of the rural electrification work is nearing completion. REA Administrator Claude Wickard admits that most of the backbone distribution lines have been built in rural areas where central station power is feasible. There will, of course, continue to be expansion in this field, but not at the accelerated rate of earlier years. This follows some decrease in loan authorization funds requested for the electrical program by REA. But with the carryover funds the total amount of money available for electric loans during the next fiscal year will not be very much different from the present one.

From now on, REA likely will pay more attention to generation and transmission loans as distribution loan applications decrease.

Principal organization change at REA will be creation of five electric distribution area offices to provide a single organization to work with distribution borrowers in developing plans and in providing technical assistance. All five will be located in Washington.

California Agency Asks Permit for Hydro Project

A California state agency has applied for a Federal Power Commission license to construct and operate a $441-million hydroelectric project on the Feather River near Oroville, Calif.

The Water Project Authority of the State of California proposes to build the 465,000-kw project which would extend into Butte, Yuba, Placer, Sutter, Sacramento, and San Joaquin Counties. Power generated would be sold in northern California to public agencies or to the Pacific Gas & Electric Co. and used at the pumping plants of the proposed Sacramento-San Joaquin delta diversion projects.

Plans call for 710 ft-high main dam across the Feather River about 5.5 miles upstream from Oroville, an afterbay dam and two auxiliary dams. Main powerhouse would contain five turbine-generator units of 88,000 kw each. Afterbay powerhouse would have two turbine-generator units of 12,500 kw each.

VERTICAL RISER CABLES

...without migration problems

For Philadelphia Electric Company

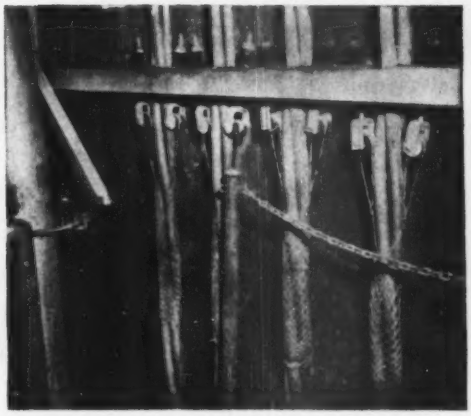
To overcome the problem of migrating compound in the vertical risers and the three per cent grade of the Schuylkill River Tunnel, the Philadelphia Electric Company chose 500 MCM G-E No. 1799 varnished-cambric-insulated cable with lead sheathing. Three cables were twisted together to form a triplex cable which simplified pulling-in during the installation.

To substantiate their design calculations, the Philadelphia Electric Company conducted a two-year tension test on a piece of 500 MCM triplex cable. They found that this design enabled the cable to withstand the stresses of the mechanical load much beyond expectations.

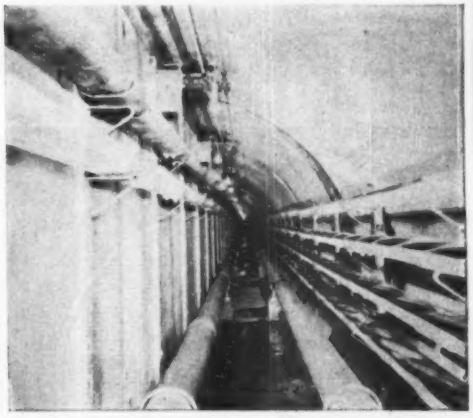
Another test showed that the minimum amount of slipper compound used in the construction of triplex cable prevented any drip of compound when the cable was held in a vertical position at 90° C.

G-E No. 1799 varnished-cambric-insulated cables are especially suited for installations that require high risers and vertical runs. These cables exceed industry standards and are made under rigid specifications from cloth woven of first quality, long staple cotton with a minimum of sizing and thoroughly impregnated with G-E insulating varnish.

Wherever you must beat migration or other difficult problems in installations up to 27 kv, look to G-E No. 1799 varnished-cambric-insulated cables. Write for further information to Section W14-527, Construction Materials Division, General Electric Company, Bridgeport 2, Connecticut.



Fifteen circuits of General Electric 15 kv triplex cable insulated with G-E No. 1799 varnished-cambric insulation in 1350-foot lengths, run through the Philadelphia Electric Company's Schuylkill River Tunnel. In the 100- and 130-foot vertical shafts to the tunnel, risers are amply supported by wire basket grips laced around the lead sheath. Triplex cable is used because of two distinct advantages — increased current-carrying capacity and minimized migration of insulating compound.



In the horizontal part of the tunnel, G-E No. 1799 varnished-cambric-insulated triplex cable minimizes the tendency to crawl down the three per cent grade. The cables are supported by "U" shaped cement trays. At each end of the tunnel the cable is fireproofed and fastened to the wall with wooden cleats. This arrangement secures the cable without injury to the sheath.

VARNISHED-CAMBRIC CABLE

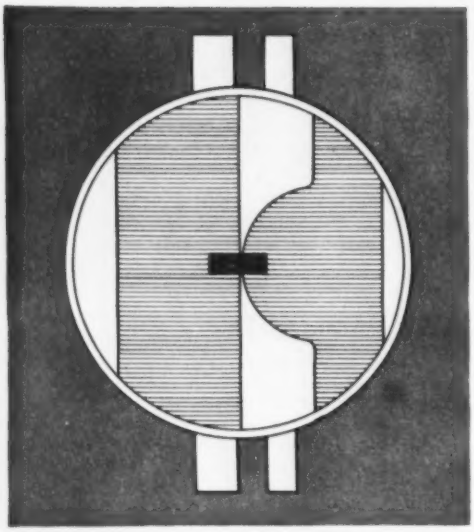
You can put your confidence in—

GENERAL ELECTRIC

new tap changer design

KEEPS TRANSFORMERS ON THE LINE . . . CURBS MAINTENANCE

New Tap Changer for De-energized Operation on Allis-Chalmers Power Transformers Combines Basic Principles and Precision Workmanship to Give Unexcelled Service Performance.



ONE CURRENT PATH PER CONTACT, established by rounded point on a flat surface, assures high contact pressure. Both magnetic and applied forces are concentrated at this single point on the contact surface.

THE IMPROVED PERFORMANCE found in the new Allis-Chalmers tap changer is the result of a radically different contact principle that insures cool, long-life operation and makes contact deterioration virtually impossible.

The tap changer is designed so that the current path on each contact is established under high pressure by means of a rounded point on a flat surface. The union is cool and positive. At the same time, flexible action maintains equal pressure on moving members, making them completely self-aligning . . . an important factor in service continuity.

Utilizes Magnetic Forces

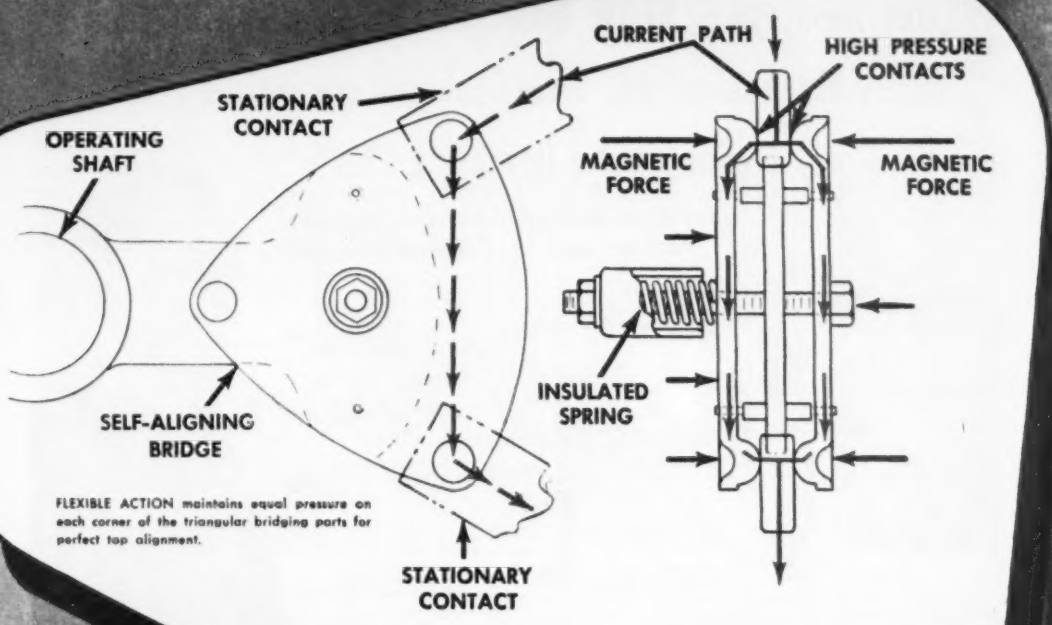
A distinctive feature of the new tap changer is the contact bridging member with parallel parts carrying current. By utilizing magnetic forces created by heavy current, contact pressure is actually increased. This automatically prohibits "throw open" action caused by short circuits on the electric power system.

Self-Cleaning Contact Action

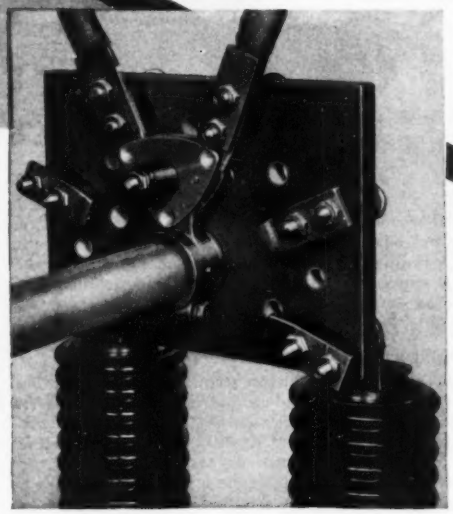
Magnetic forces added to a strong applied force provide a low resistant path for current. Self-cleaning action of contacts eliminates carbon growth and reduces heating.

Engineering of this kind can save you money on your next power transformer installation. Why not investigate its benefits today.

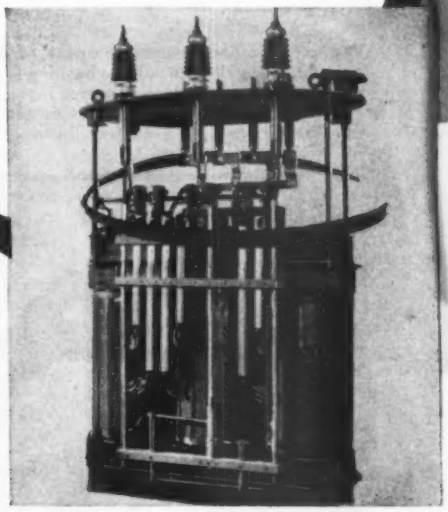
A-3644



FLEXIBLE ACTION maintains equal pressure on each corner of the triangular bridging parts for perfect tap alignment.



THIS VIEW of the new A-C tap changer shows moving contact member bridging the stationary tap lead connections. The tap changer employs copper-to-copper rounded point contacts. Voltage stresses and corona were reduced by keeping sharp corners and edges to a minimum.



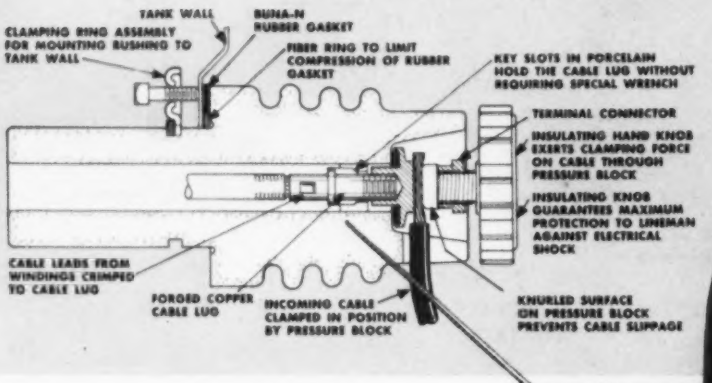
MOUNTED ABOVE the core and coil assembly, this new tap changer is easily accessible for periodic inspection through the cover handholes. Tap positions are changed on all phases simultaneously.

ALLIS-CHALMERS

MILWAUKEE 1, WISCONSIN

"Our New POLE STAR HIGH VOLTAGE BUSHING has every Mechanical and Electrical Feature desired by Utility Engineers and Operating Men"

says **W. A. MOCKER**, *Planning Engineer*,
PENNSYLVANIA TRANSFORMER COMPANY


TANK WALL
BUNA-N RUBBER GASKET
CLAMPING RING ASSEMBLY FOR MOUNTING BUSHING TO TANK WALL
FIBER RING TO LIMIT COMPRESSION OF RUBBER GASKET
KEY SLOTS IN PORCELAIN HOLD THE CABLE LUG WITHOUT REQUIRING SPECIAL WRENCH
TERMINAL CONNECTOR
INSULATING HAND KNOB EXERTS CLAMPING FORCE ON CABLE THROUGH PRESSURE BLOCK
INSULATING KNOB GUARANTEES MAXIMUM PROTECTION TO LINEMAN AGAINST ELECTRICAL SHOCK
CABLE LEADS FROM WINDINGS CRIMPED TO CABLE LUG
FORGED COPPER CABLE LUG
INCOMING CABLE CLAMPED IN POSITION BY PRESSURE BLOCK
KNURLED SURFACE ON PRESSURE BLOCK PREVENTS CABLE SLIPPAGE

Pennsylvania Transformer Company, pioneer of the straight, sidewall high voltage bushing for distribution transformers, has re-designed its high voltage bushing and is now installing it on all Pole Star transformers requiring sidewall bushings.

ELECTRICALLY CO-ORDINATED

The Basic Impulse Level of the bushing is co-ordinated with the transformer windings. When the transformer is subjected to a voltage surge above the BIL of the bushing, the bushing will flashover on the outside. A separate, completely co-ordinated bushing is available for each voltage class—5 Kv and 8.6 Kv.

MECHANICALLY IMPROVED

The new Pole Star bushing is extra strong and extra safe. No tools are needed to make a line connection. *You simply insert the incoming cable through the side opening and turn the handle.* This tightens the pressure block against the cable and holds the cable in a vice-like grip to make an excellent electrical and mechanical connection. The corrugated, easy-to-grip knob is constructed of a phenolic rubber compound and will not break to expose live parts, or chip to cut a lineman's glove.

Let the POLE Star be your guide Product Of Long Experience Safe Thrifty And Reliable

Pennsylvania
TRANSFORMER COMPANY
CANONSBURG, PA. • ***Greater Pittsburgh District***

REHEARSING for a television program panel discussion at AIEE Northeastern District Meeting are (left to right) James F. Fairman, Depa administrator; Dean Emeritus Dexter S. Kimball, Cornell University; Arnold W. Milliken, vice president and general manager, New York State Electric & Gas Corp; Professor J. G. Tarboux, Cornell University; and Barbara Harris, moderator, Station WNBF-TV, Binghamton

New Distribution Systems . . .

. . . to meet mounting load of next ten years are considered in symposium at AIEE Northeastern District Meeting

Planning distribution systems to meet mounting loads of the next decade was the theme of the major symposium at the Northeastern District meeting of American Institute of Electrical Engineers in Binghamton, N. Y., April 30 to May 2. Four sessions had been arranged to treat various segments from subtranmission through substations and primaries to the ultimate secondary.

That coming loads are certain to tax some of these components was demonstrated by Fischer Black, editor of Electrical World, who predicted a 250% increase in 10 years in residential and rural consumption. This, he pointed out, is an inevitable consequence of increased population, increase in families and home and increased use of appliances. He asserted these influences would offset any dip in national industrial activity. He showed that established "saturated" appliances had recently outstripped all sales predictions.

Wire Size . . . In selecting economic wire size to contend with current and prospective demand it is fortunate that the curves are comparatively flat, said A. T. Green, Niagara Mohawk Power Corp. Thus, he said, they afford considerable latitude to allow for varying assumptions as to fixed charges, copper cost, value of losses, primary voltage, overall drop, etc. The same flatness favors decisions toward the larger sizes indicated by expected or unexpected growth.

Secondary systems deserve particular attention, said V. A. Rydbeck, General Electric Co, because they often have more mileage than other parts of the system. He too demonstrated that the curves for most economical combinations of transformer rating and secondary wire are not critically affected by assumed cost of conductor, or higher (240/480) secondary voltage. Higher primary voltage, he said, is likely to indicate larger secondaries. Even three-phase distribution would leave prevailing conductor sizes largely unaltered.

J. S. Williams, Westinghouse Electric Corp, compared various distribution patterns capable of serving areas of high density loading—radial, primary network, banked secondary, overhead and underground secondary network:

Radial is usually the cheapest but least secure. Primary network seems not to improve the outage performance. Banked secondary at least offers freedom from outage due to transformers.

Voltage Regulation . . . Detailed comparison of costs of providing voltage regulation by various alternatives was presented by W. L. Peterson, Allis-Chalmers Mfg Co. Six-step regulators on the feeder were shown to be substantially cheaper than load-ratio control on the substation transformer. Answering a query about prospect of larger ratings, Peterson pointed to the desirability of staying within limits that would sustain volume production and lowest consistent cost per unit.

(*Continued on page* 18)

CLASSROOM SCENE shows J. S. Franklin, an instructor supplied by the General Electric Co. giving a demonstration lecture on "Photometric Data." An inspection trip of the Photometric Laboratory followed. Most of 17 members of class were from utility companies

GE Institute Graduates Another Class of DL's

Street lighting school at Lynn, Mass., gives a three-day course and the degree of 'Doctor of Lumenology' to utility and municipal engineers

Name . . . General Electric Institute of Lumenology

Founder . . . Henry E. Butler of the General Electric Illuminating Laboratory

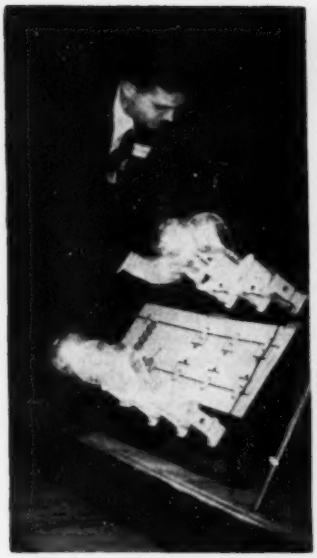
Location . . . Originally (1913) at Schenectady, N. Y., but now at Lynn, Mass.

Purpose . . . To promote more accurate and scientific knowledge of the techniques and practices of street lighting among utility and municipal engineers.

Curriculum . . . This consists of lectures, basic street lighting courses, luminaire design, application problems, and plant tours, along with laboratory experiments. Emphasis is placed upon the latest application

DESIGNING THE LUMINAIRE is a precision job, A. M. Bjontegard, GE luminaire designer, tells the class, and then he goes on to prove it

TWO UTILITY EMPLOYEES, John Sandlein, United Illuminating, and W. A. Zander, Detroit Edison, work a problem tutored by Bob Clark, GE



OPERATION of a film cutout in a series street lighting circuit is demonstrated

SHOP TOUR gives GE application engineer, Carl Webster, an opportunity to explain the plating of a luminaire reflector. Class profited from these practical aspects of the course

developments in the street lighting industry rather than on General Electric Co equipment.

Facilities . . . Lectures and classes are held in a specially designed Lighting Demonstration Room, completely equipped with operating exhibits of all types of outdoor lighting equipment.

Admission . . . One of GE's 12 district offices invites a utility to send some of its officials to take the three-day course. There is no charge for the course, but the students pay own transportation and hotel expenses.

Degree . . . "Doctor of Lumenology."

Alumni . . . To date over 6,000, 52% from privately owned utilities and 31% from the General Electric Co

BASIC STREET LIGHTING PROBLEMS are worked out by the group. The instructors are on hand to help with everything from abstract theories to practical problems troubling students

STANDARD SOURCES of light are explained by Instructor J. S. Franklin during class tour of the company's modern Illuminating Laboratory

GRADUATE A. J. Klopp, Metropolitan Edison Co, gets his diploma from Dr A. F. Dickerson, general manager of Lighting and Rectifier Dept

New Distribution Systems (continued)

Higher distribution voltages, coming into increased use, are more, rather than less, favorable to joint pole use by power and telephone utilities, according to W. R. Bullar, Ebasco, and W. Bloeker, American Telephone & Telegraph Co. The higher fault current available on such multi-grounded neutral distribution systems insures more rapid de-energization with better protection to plant and personnel.

Herbicides . . . Use of chemical herbicides for brush control on utility rights-of-way is drawing criticism from groups who claim it mars the sightliness of the landscape, and destroys game cover. Leon Phillips, Pennsylvania Power & Light Co reported. In Pennsylvania state highway officials have instituted rules regarding herbicide use, adjacent to main highways he reported. Two other states have prohibited the use of herbicides in such locations. Phillips urged the formation of an industry committee charged with building better public understanding of chemical control and also with improving application.

Inspection of wood treatment processes in the suppliers own plant is the only sure way for utilities to be certain that they are getting the preservative treatment they specify, F. A. Ashbaugh, West Penn Power Co said. Proper use of wood in utility work depends on selection of the right wood for the job, specification of correct treatment and preservative, a good supplier and inspection, he said.

Transformers are apparently being built too strong and costly in the light of the strong tendency to accept lowered insulation, according to J. R. Mann, Allis-Chalmers Manufacturing Co. He suggested new tests, particularly a long duration test at about 25% above operating voltage. He foresees 5 or even 10% reduction in cost for 220-kv transformers set at a 900 or 825 kv impulse level.

The X/R ratio is a primary criterion for application of capacitors to offset the effects of transmission system impedance, said A. D. Tuttle, New York State Electric & Gas Corp. Fixed units reduce the spread between light and full load voltage and may permit a reduction in running hours of low efficiency generating units otherwise run merely to hold voltage.

Circuit Breaker Performance . . . Cumulative fault interrupting duty, without maintenance, totaling 18 times its interrupting rating was achieved in recent field tests of a standard 69 kv, 1500 Mva oil circuit breaker. This integrated duty, and the 11 full-rated capacity interruptions included, tops any previously reported tests on a breaker of this class, according to P. L. Taylor, Allis-Chalmers. In all, 28 interruptions were included with faults ranging from 173 to 1,580 Mva. Accumulated fault duty was 26,487,000 kva.

Trouble-free startup of a recent 60,000 kw addition to New York State Electric & Gas Co's Goudey Station was credited by W. Greacen and J. R. Stover to careful operator training, through checking of auxiliary equipment and controls according to a detailed schedule, and complete cooperation of consulting engineers. Latest operating data shows a boiler efficiency of better than 90%, turbine and station heat rates of 8,553 and 4,806 Btu/kwhr respectively at an average load of 72,950 kw.

Fairman Speaks . . . Doubt that engineers have done enough toward creating good government was expressed by banquet speaker J. F. Fairman, Depa administrator. "It's easy," he said, "to give authority away these days but hard to get it back."

Industry has been wise in sending men on loan to Washington to administer controls under the power program, Fairman said. It not only assured administration of controls by men familiar with utility needs but was an added guarantee against perpetuation of controls over the power industry after the program had served its purposes. Fairman asked professional engineers to accept such tours of duty in Washington willingly as their contribution to the defense effort and good government.

Compares N.Y. Project Costs

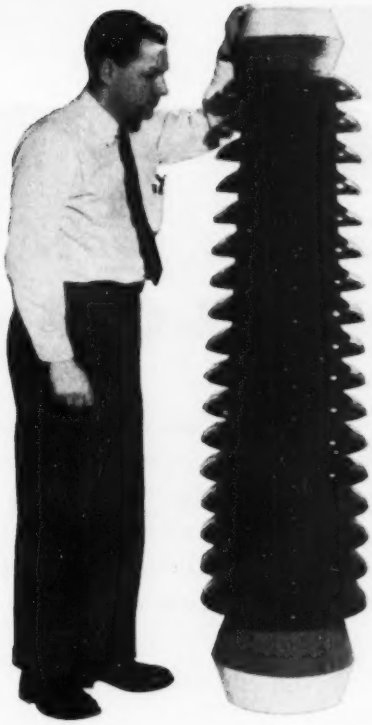
Development of the St. Lawrence and Niagara Rivers would add a minimum dependable generating capacibility of 1,682,000 kw to the 6.3 million kw of capacity existing in New York State in 1951, F. J. Leerburger, consultant, New York Power Authority, said at the Northeast District Meeting of American Institute of Electrical Engineers in Binghamton, N. Y.

If the Niagara and the St. Lawrence Rivers are not developed, he said, and New York's 1960 power needs are supplied entirely by new steam plants built by utilities in the state, a total of 4 million kw will be needed costing an estimated $825 million. On the other hand, to satisfy the state's 1960 needs by a combination of river developments and steam generation would require 2.7 million kw of new steam capacity. The combination development would cost an estimated $1,175,000,000, Leerburger said. If this is to be done, Leerburger proposed that a 287-kv backbone transmission loop be built to supplement existing 110-kv private transmission to allow a state-wide pooling of all power facilities. Its cost would be an additional $98 million or more, he estimated.

Hydro Cheaper . . . Adding it all up, Leerburger estimated that annual fixed charges and operating cost of new privately owned generation and transmission facilities to satisfy New York's 1960 needs entirely with steam capacity would total $473,986,000 annually. To develop the St. Lawrence and the Niagara alone, using public funds and provide the necessary transmission facilities, also with public funds, would cost $372,637,000 annually, a difference of $101 million a year. Of this cost difference, $46 million was represented by the divergence in tax and financing requirements of public vs private business.

Private financing of the Niagara and St. Lawrence developments with use of existing utility transmission facilities would cost approximately $32,164,000 a year less than the proposed steam development, according to Leerburger.

To develop the two rivers with public funds, provide enough privately financed steam capacity to meet the balance of the state's 1960 needs, and distribute the power over transmission lines of private utilities of the state, as the Authority proposes, would, according to Leerburger's figures, cost $401,269,000 a year.



THIS IS A 161-Kv POTHEAD BUSHING

This porcelain bushing is part of the terminal for a high-pressure oil-filled cable. Manufactured to Lapp standards of strength, soundness and close dimensional tolerance, it becomes part of a substantially improved device for its purpose.

In service, it operates under 200 lbs.-per-sq.-in. pressure. To assure an adequate factor of safety, each piece is tested at 500 lbs. pressure. Thermal tests are made under pressure.

A critical requirement in the design, and tolerance of manufacture, of this piece is that it be leakproof under this pressure—and that a mechanical seal be effected in such a way as not to harm the porcelain through its years of service, under sharp thermal changes or the mechanical loads involved.

Ceramic pieces of large size and of close dimensional tolerance are traditionally difficult of production. Yet Lapp has a long record of successful performance in meeting such requirements. The reason lies in Lapp's history of dissatisfaction with existing "bests" . . . in Lapp's zealous pursuit of improved knowledge in design, production techniques and controls.

For porcelain pieces of special design, or routine pieces with something "special" in the way of extra performance, look for the name LAPP. Manufacturers of equipment incorporating electrical porcelain—as well as users of high voltage insulators—know that although *you can buy cheaper porcelain—you can't buy better porcelain—than Lapp.*

Lapp Insulator Co., Inc., Le Roy, N. Y.

Lapp

FOR BETTER PERFORMANCE...

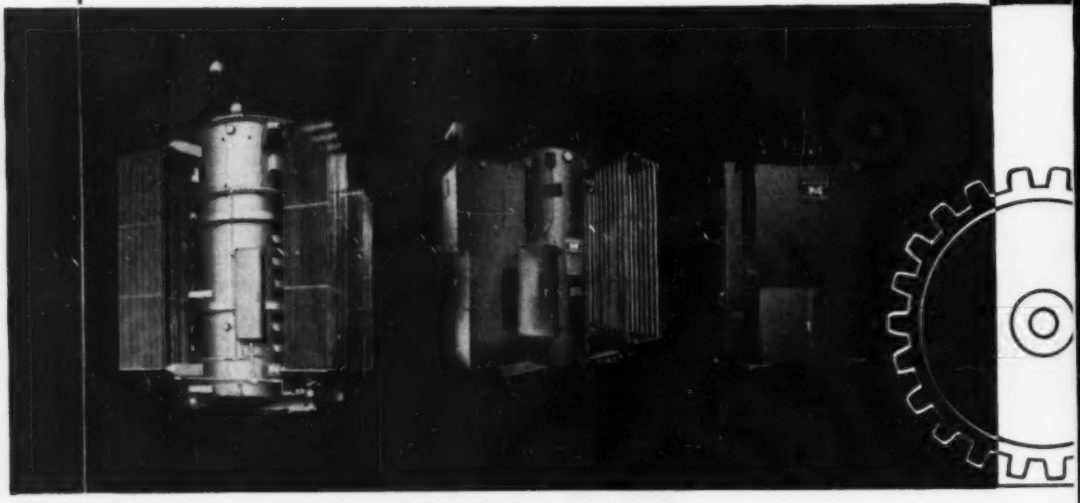
at the flick of a switch...
specify MOLONEY

It is the modern miracle of electricity that enables man to operate everything from a toaster to a transportation system . . . by a flick of a switch. At your fingertip is the *power* to start . . . or stop the whole of America's industry. This *power* . . . from source to use . . . is regulated, transmitted and distributed with the aid of the transformer. Of necessity a transformer must be dependable . . . that is why the name Moloney is synonymous with the word transformer.

For Better Performance . . . Specify MOLONEY.

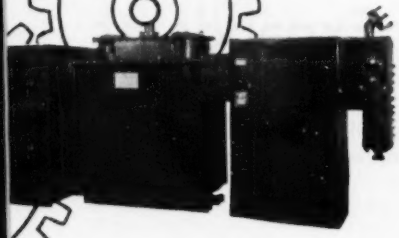
MOLONEY ELECTRIC COMPANY

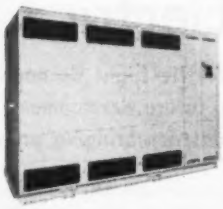
St. Louis 20, Missouri

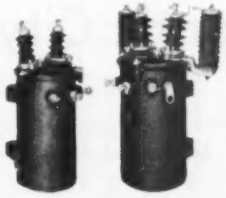


FACTORIES AT ST. LOUIS 20, MISSOURI AND TORONTO, ONTARIO, CANADA

Manufacturers of Power Transformers • Distribution Transformers • Load Ratio Control Transformers Step Voltage Regulators • Unit Substations

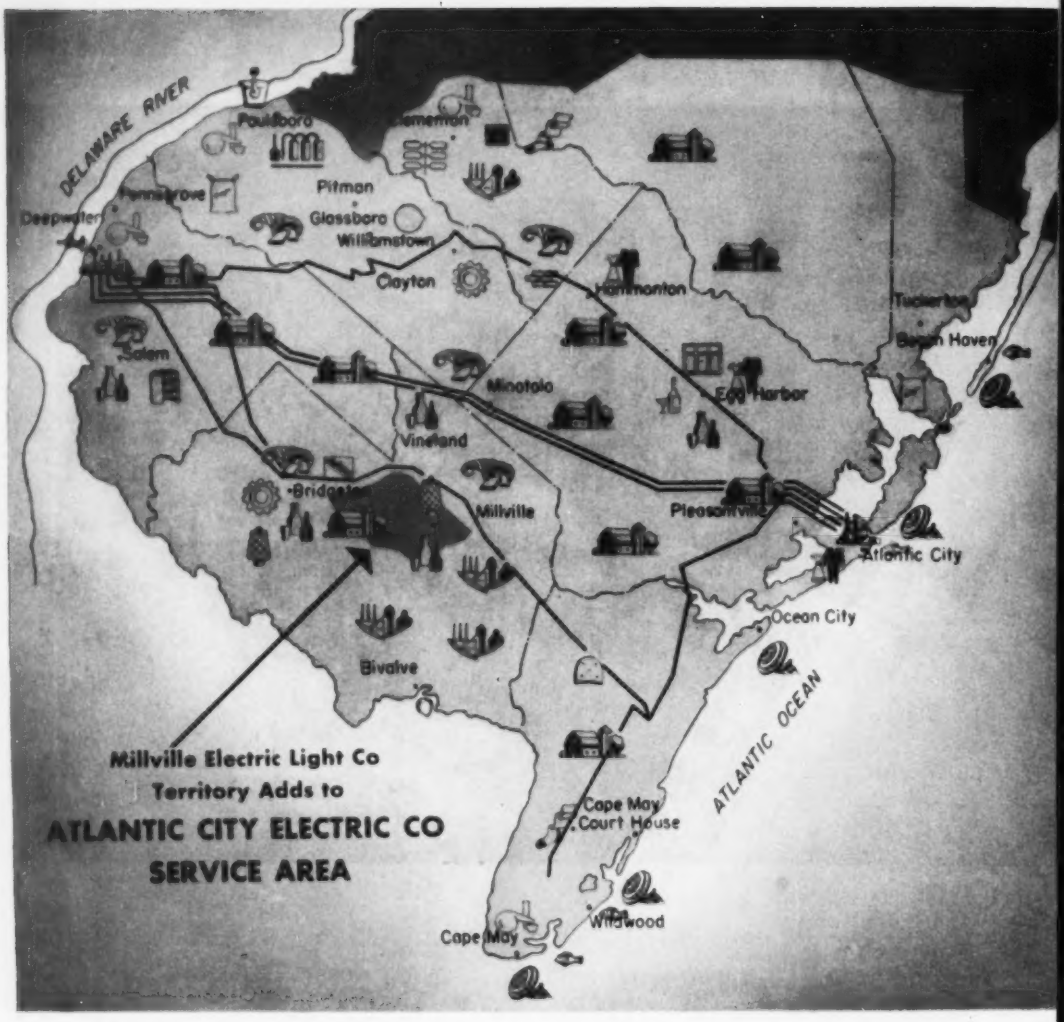






BETTER PERFORMANCE
GREATER RELIABILITY
LESS MAINTENANCE

SALES OFFICES IN ALL PRINCIPAL CITIES



Atlantic City Electric Co Expands Its

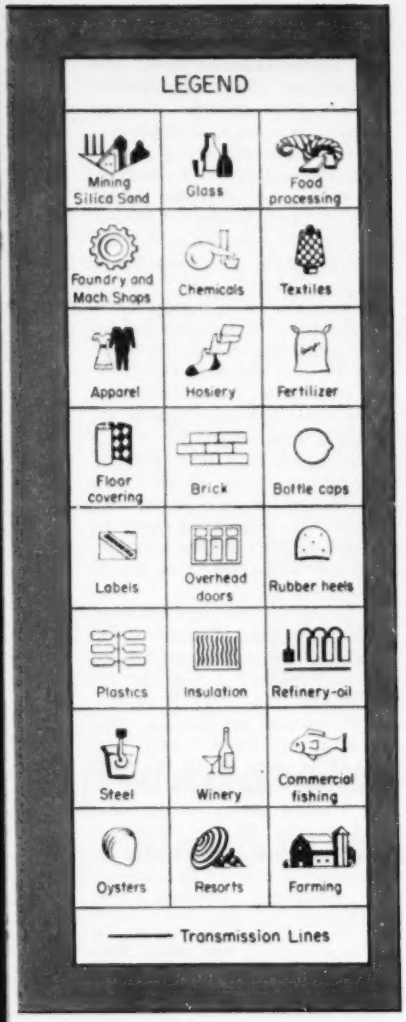
Acquires Millville Electric Light Co and 6,000 customers. New area offers opportunities for future development. Company, headed by B. L. England, finds new industries bringing prosperity to western area

Atlantic City Electric Co has acquired the Millville Electric Light Co. For the 45-year-old company the move appears to be a profitable one. It adds 6,000 customers to bring the total to close to 175,000. It offers a rich territory to develop. And it is likely to boost AC's earning from $1.70 to $1.80 a share.

The company now serves all of the southern third of New Jersey with the exception of Vineland. This is served by a municipal system.

Though Atlantic City Electric, because of its name, is usually associated with the resort area, such business accounted for only 35.5% of the company's revenue in 1951. By 1955 this percentage is expected to decrease to 30%.

There was a time before World War II when resort business brought in 55% of the company's revenues, but now the company is becoming an industrial supplier. This is especially true in the western section of the state in the region bordering the Delaware.



Territory

It is here that new industries are settling and bringing with them prosperity. This industrialization is being spurred by the construction of the Delaware Memorial Bridge and the New Jersey Turnpike. This has made the region easily accessible to the New York, Philadelphia, Wilmington, Baltimore, and Washington markets. Nearly 50 million people live within overnight trucking distance (250 miles) of the area.

Naturally with the industries will come workers who will live in homes and patronize commercial establishments which will get their electricity from the company.

The industrial region is spreading eastward into the central section of the state which is agricultural. This is one of the great food-processing regions in the country. There are acres and acres of rich farms which supply foodstuffs to the nearby metropolitan areas. Surplus produce is canned or frozen.

Agricultural Load Growing . . . The company's agricultural load is heavy and is still growing rapidly. Average use per farmer was 2,796 kwhr in 1946. This rose to 4,454 kwhr in 1951. In the near future it is expected that the 5,000-kwhr mark will be reached. Average use by domestic customers in 1951 was 2,157 kwhr. Service is available to 99% of all rural customers, and most of them are served by a 12-kv network.

Territory diversity has been of great advantage to the company. Because of its heavy resort load, the company is one of the few, if not the only one, in the North with a summer peak. Last September this was 163,000 kw. (This was a bit unusual as the summer peak usually occurs in August). The December peak was 158,000 kw. Low monthly peak of 1951 was 121,200 kw in May. For the first three months of 1952 peaks have been running from 8,000 to 15,000 kw above last year.

But with the rapid increase of load coming in the industrial area, it is quite likely that within a few years the summer peak will drop behind that of the winter. Electric house heating may also add considerable load to the winter peak.

Favors Electric House Heating . . . Atlantic City Electric is one of the few electric companies that looks with favor on electric house heating. It has close to 300 customers on its lines using glass panel heating. Some of these homes are occupied holidays and weekends while others are occupied the year round. The house heating rate permits use up to 10 kw at cost of 1.75¢ per kwhr if other uses of energy exceed 300 kwhr a month.

Du Pont Contract Unique . . . One of the company's most profitable industrial contracts is that with E. I. du Pont de Nemours & Co. This is actually a series of contracts under the terms of which Atlantic City Electric installs units in its own power plants and sells the power to du Pont under long-term contracts (EW, Feb. 11, p 94). In addition the company also supplies process steam.

Under the latest contract AC will install a 10,000-kw unit in its Greenwich Plant to serve the manufacturer. The power and steam will go to du Pont's Repauno Works, near Gibbstown, where a plant is being erected to manufacture a new fiber, Dacron Polyester.

A 12,500 and a 20,000-kw unit are installed at Deepwater Plant and are serving du Pont under earlier contracts, the first signed in 1928. The best part of the three contracts from the utility's viewpoint is that they allow it to use any surplus power available from the units.

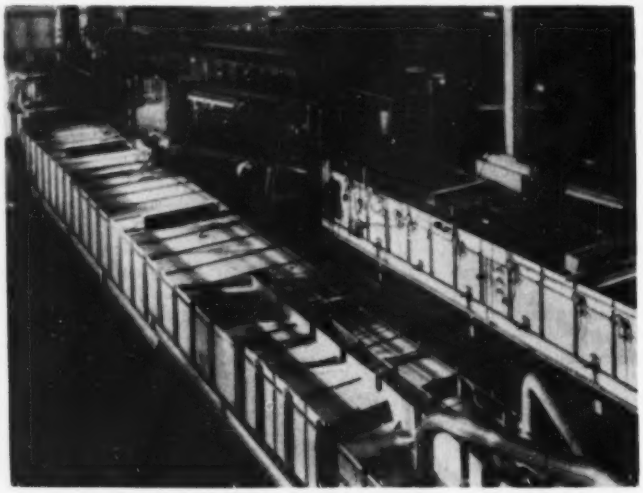
These du Pont-contracted units do not figure in the statistical reports of the company. The utility merely operates the units, sells the power and steam, and issues statistics except those in regulatory commission reports for the remainder of its system under the heading, "net system."

England Is President . . . The company is a former subsidiary of American Gas & Electric Co. It became officially independent March 15, 1949 though divestment proceedings had

Years of Progress

	1947	1952	1960
Customers	136,220	180,000	239,000
Employees	1,371	1,652	2,300
Sales (Kwhrs—Millions)	498.2	819.1	1,615.9
Plant Capacity (Kw)	180,000	243,000	450,000
Plant Account (Millions of Dollars)	53.8	90.0	174.0
Revenue (Millions of Dollars)	13.25	22.5	38.25

ATLANTIC CITY gave Atlantic City Electric Co its name and also the reputation of being a utility which derives most of its business from the nationally known seaside resort area . . .



. . . BUT IT IS FACTORIES such as these in the western part of the state on which most of the company's future depends. These are glass machines at the Wheaton Glass Co in Millville

been started in June 1947. Bayard L. England, Newark-born but raised in Atlantic City, who had been general manager in charge of the company when it was an AG&E subsidiary, became president.

Pat, as he is commonly called, is widely known throughout the industry. He is vice president of Edison Electric Institute and is the No. 1 candidate to succeed George M. Gadsby as president at the convention in June.

Howard H. Melvin, executive vice president of the Millville utility, is now an AC vice president.

As an independent the company has made steady progress. Indications are that this progress will continue.

Millville Purchase the Third . . . The Millville purchase is the third made in recent years by the company to consolidate its territory and holdings. On July 1, 1949 it acquired by merger the South Jersey Power & Light Co. On July 24, 1950 the company became sole owner of the Deepwater Plant on the Delaware River. The company and Philadelphia Electric Co had been co-owners through ownership of a subsidiary company.

The company believes in an aggressive commercial policy. In cooperation with dealers it pushes electric ranges and water heaters. At the end of 1951 range saturation in its territory was 44.4% and water heater saturation 24.8%.

To take care of its capacity needs of the future, the company has ordered a 60,000-kw unit for its Deepwater Plant. It now has 106,000 kw there not counting the du Pont units. At the Missouri Avenue Plant in Atlantic City it has 94,000 kw. It is a member of the New Jersey-Pennsylvania power pool, one of the largest in the country. In the past the company has been contributing energy to this pool in winter and has been able to get extra energy any time that it has needed it.

Financially the company has been progressing steadily. Perhaps this is why on April 21 the company's common stock reached a new high of 25¼ on the New York Stock Exchange. Earnings per share on common which were $1.40 in 1947, rose to $1.45 in 1948, $1.55 in 1949, $1.65 in 1950, and $1.70 in 1951.

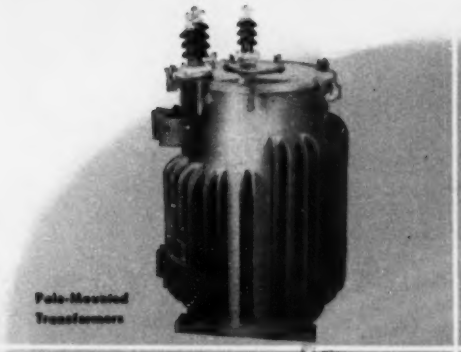
At a recent meeting of the New York Security Analysts President England said it was the intension of the company to continue its conservative capitalization structure. The capitalization ratio follows:

	Dec. 31 1951	Dec. 31 1952	Dec. 31 1953
Debt	49.13	48.20	49.85
Bonds and bank notes	. . .	.38	.34
preferred	17.56	20.93	19.71
common stock and surplus	33.31	30.49	30.10

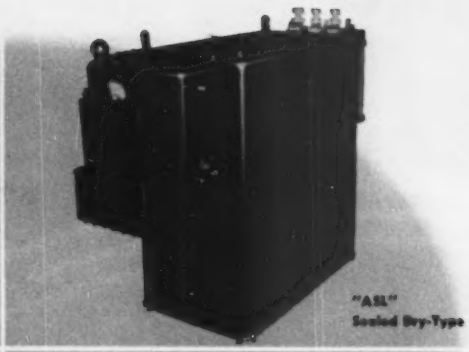
"This year's financing needs will total approximately $9 million," he said. "The recent bond issue realized $4,620,000 of this and was placed at a yield rate of 3.15%. The balance will be obtained through a preferred stock issue sometime this fall.

"In 1953 we will resort to debt financing for approximately $3 million. In 1954 approximately $7 million will be required above that generated within the company. The method of financing is difficult to tell today.

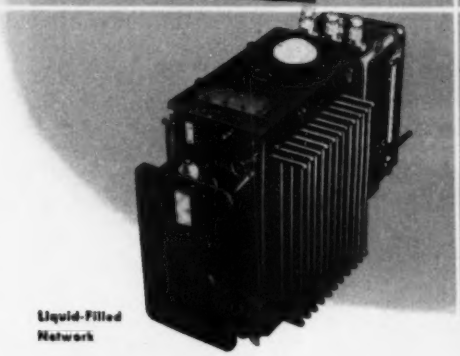
"So the cash requirements ahead of the company to finance its construction program are not major."



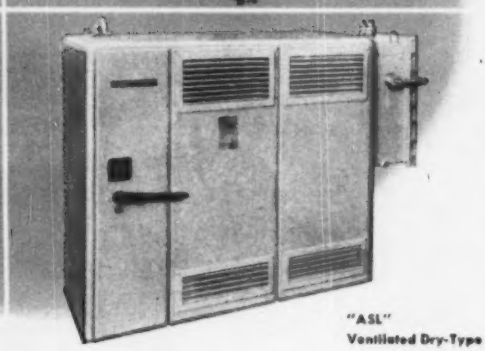
Pole-Mounted Transformers



"ASL" Sealed Dry-Type



Liquid-Filled Network



"ASL" Ventilated Dry-Type

Standardized Transformers make networks pay... *FASTER!*

Sure, network systems pay. The big savings come from continuity of service, flexibility to meet changing demand. But there's another important saving available right now. That's the saving you can realize in transformer costs. Standardization brings production economies that are passed directly to you.

These four standard transformers meet every network requirement:

FOR GENERAL USE. Liquid-Filled Transformers, the workhorse of the network system. Available in sizes 1000 kva and below, 34,500 volts and below, oil or Inerteen® filled.

FOR INDOOR SERVICE. Dry-Type Transformers, ideal for indoor networks . . . lightweight, economical and maintenance-free. Available in sizes 1000 kva and below, 15,000 volts and below.

FOR GREATEST SAFETY. Sealed Dry-Type Transformers give greater safety for crowded areas, or where hazards like explosive gas atmospheres, corrosion or water conditions are not suitable for ventilated dry-type. 1000 kva and below, 15,000 volts and below.

TOPS FOR ECONOMY. Pole-Mounted Transformers for overhead networks. Available in a wide range of sizes, from 150 kva and smaller 15,000 volts and below.

Let us talk them over with you and point out the specific economies that can fit into your plans best. In addition, our complete facilities . . . engineers and calculating boards . . . are available to help you make future expansion more economical. Ask your Westinghouse representative, or write for booklets B-4028 and B-4002A. Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pa.

J-70587

YOU CAN BE SURE... IF IT'S

Westinghouse

NETWORK TRANSFORMERS

Meeting the Nation's Growing Power Load

Greater System Capacity through new and higher Breaker Ratings

Heavy-power concentrations and extensive system interconnections have created demands for circuit breakers with unprecedented characteristics and ratings. Yesterday 10,000,000 kva for 230,000 volts looked like the ultimate . . . today we are approaching 15,000,000 kva. Westinghouse has developed and already has installed other new and higher ratings for a wide range of voltages.

What's the meaning of these new ratings? Higher voltages will carry larger power blocks more economically. Higher interrupting capacity makes greater concentration of generation or of transmission lines at one location possible. With the same system stability, extra transmission lines and current-limiting reactors are eliminated.

Westinghouse started getting ready for these new interrupting peaks 27 years ago, when the High-Power Laboratory was created. The facts gained from thousands of short-circuit tests . . . proving ratings as high as 10,000,000 kva . . . have enabled us to reduce breaker operating time, size, and amount of equipment to do the job.

It's another example of Westinghouse thinking ahead. It's an awareness of all utility needs . . . keeping breaker capacity, for example, in step with system expansion, so that your investment in generating and transmission facilities can be protected. With the realization that America's power appetite is growing, marches our responsibility to build apparatus . . . that is more efficient, economical and reliable. J-97162

YOU CAN BE SURE . . . IF IT'S

Westinghouse

New ratings available

Since 1945 Westinghouse has developed the following new circuit breakers:

34.5 kv, 2,500,000 kva
69 kv, 3,500,000 kva
115 kv, 3,500,000 and 5,000,000 kva
138 kv, 5,000,000 and 10,000,000 kva
161 kv, 5,000,000 and 10,000,000 kva
230/196 kv, 10,000,000 kva

Westinghouse is the first company to build and have installed 161-kv, 10,000,000-kva breakers. 230-kv, 10,000,000-kva breakers already have several years of field experience. Westinghouse also will soon deliver a substantial number of 138-kv, 10,000,000-kva breakers.

Westinghouse also has converted existing breakers to ratings of 10,000,000 kva by changing to new interrupters . . . extending the useful life of present equipment.

New pneumatic mechanisms

Modern power requirements call for high-voltage circuit breakers capable of initial reclosure in 20 cycles or less. The newly developed Westinghouse pneumatic-operating mechanism combines high-speed reclosing with mechanically trip-free opening so that the breaker cannot be held closed after a tripping impulse has been given. Further, latches are reset so rapidly that subsequent reclosures are possible after intervals only a little longer than the initial reclosure.

New surge-tank development

High-current arcs manifest themselves as shock waves inside the tank. To reduce the impact on the bottom of the tank and the foundations, and to eliminate rebound, surge tanks are mounted in the breaker to absorb the shock. Here again, Westinghouse engineering development and testing make higher ratings possible.

Chronology of breaker developments

In 1930, the original "De-ion®" grid reduced breaker opening time from 30 cycles down to a new standard of 8 cycles. The Multi-flow grid in 1940 made higher ratings possible and reduced standard opening time to 5 cycles. The extension of the Multi-flow grid principle has resulted in smaller sizes, lower oil content and higher interrupting ratings, and faster opening times down to 3 cycles.

To learn how these new developments can help you, call your Westinghouse Electric Utility representative . . . or write Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pennsylvania.

Sangamo J Meters

are quiet in operation

In the interest of good public relations, utilities must have meters that are quiet. Even when meters are installed outdoors, the point of installation may be on a wall near a bedroom that could act as a sounding board.

For this reason, great pains have been taken to make sure that Sangamo J Meters *are* quiet. The lamination assemblies are riveted with 15 tons pressure so that they do not vibrate according to the alternating current frequency.

To silence any vibration of the moving element, the upper guide bearing has been furnished with a stainless steel pivot of such length that its period of vibration is outside the resonant range of system frequency, and therefore, noiseless. This pivot is anchored in sound deadening alloy to dampen out the noise of vibration and to produce a meter which gives exceptionally quiet operation even under the most adverse conditions.

Only Measured Facts are Known Facts

SANGAMO
ELECTRIC COMPANY
SPRINGFIELD, ILLINOIS

SM52-5

Sangamo J Meters have proved their ability to meet today's requirements and tomorrow's anticipated loads with sustained accuracy, economy of maintenance and troublefree performance.

Penfield Elected Head of PUAA

Association names Detroit Edison advertising supervisor its president at annual meeting in Minneapolis

(Cover Story)

Paul L. Penfield, supervisor of advertising for Detroit Edison Co, is the new president of Public Utilities Advertising Association.

The former first vice president was elected to the presidency at the association's annual meeting May 8-9 at Minneapolis. He succeeds John E. Canfield, vice president of Wisconsin Power & Light Co.

Outlines Objectives . . . Penfield told Electrical World he had two objectives he would like to have the association achieve during his term of office.

The first is consolidation of PUAA's nine regions into eight, with each region holding its own meetings.

The second is the continuation and expansion of present programs such as the Advertising Exchange Service. This program calls for PUAA members to forward proofs of their advertisements, and copies of their various booklets and pamphlets, to George Kindon, Advertising Department, Philadelphia Electric Co. The best material is then incorporated into a magazine, which is mailed to members and made available for use.

From China to Detroit . . . Penfield's career spans a good portion of the globe. From 1923 to 1925 he taught school in the City of Changsha, in the Hunan Province in south-central China. Beginning in 1926, he spent three years with George Harrison Phelps, Inc, a Detroit advertising concern. In 1929 he established an electrical appliance firm, Campbell-Penfield, Inc, in Detroit.

He remained with this company until 1939. At that time he became associated with Detroit Edison in the Commercial Office Division, serving on the supervisor's staff. He assumed the advertising post in 1945.

R. N. McCollom has been appointed manager of the application engineering department of Westinghouse Electric Corp's Transformer Division at Sharon, Pa. McCollom, who joined Westinghouse in 1927, returns to the company after serving a year with the National Production Authority's Electrical Equipment Division. He succeeds **C. H. Bartlett** who recently was named manager of the division.

Whitney H. Owen, former Bureau of Reclamation engineer, has been named electrical engineer for the Provo (Utah) Department of Utilities. In the newly created post he will head the electric power department in a staff capacity and also will serve as field consultant for the Provo Utilities Board.

J. W. Sholtens, former district supervising engineer and head of the Hazard district engineering department of Kentucky & West Virginia Power Co since 1947, has been appointed assistant district manager of the utility's Hazard district. He joined the company in 1937.

Jacob Wallace Coleman, Jr, has been named manager of apparatus insulation sales of Owens-Corning Fiberglas Corp's Textile Products Division. Coleman, who started with the firm in June, 1951, will direct sales of Fiberglas yarns to magnet wire, sleeving, and tubing manufacturers and cord sales to distributors.

C. Evans Ralston has been appointed assistant superintendent of transmission and distribution of Narragansett Electric Co, Providence, R. I. Ralston, who joined the New England Electric System in 1934, has been serving as distribution superintendent of the Northern Berkshire Gas Co, North Adams, Mass. **Donald R. Tefft** succeeds Ralston at Northern Berkshire. **Henry T. Betts** has been appointed assistant electric distribution superintendent of the system's North Shore utilities with headquarters at Salem, Mass.

L. J. Blaize Is Advanced by Dallas Power & Light

L. J. Blaize, vice president of Dallas Power & Light Co, has been appointed vice president in charge of the engineering and system operation. In this post, Blaize will be responsible for the supervision of the engineering, distribution, and plant departments.

Before his appointment as vice president in 1950, Blaize had spent

L. J. BLAIZE

20 years in the engineering and executive departments of the utility.

He entered the employ of Dallas P&L in 1930 as an electrical engineer engaged in design and operation. In 1943 he was made assistant to the vice president with general administrative duties and in 1944 was elected a director of the company.

Harold R. Johnson has been made director of public relations for the American Gas & Electric Co, New York. Johnson, who has been public relations director for American G&E's

subsidiary, Ohio Power Co, since 1948, will succeed **Henry P. Megargee,** who is retiring Sept. 1. Megargee, who has served more than 40 years in the utility field, assumed the director's position in 1948. Johnson's Ohio Power post will be filled by **Robert F. St. John,** now editor of the company's publications.

Union Carbide & Carbon Appoints Dial President

Morse G. Dial has been elected president of Union Carbide & Carbon Corp, New York. He succeeds Fred H. Haggerson, who will continue as chairman of the board.

The firm also announced the election of Walter E. Remmers as vice president of the Alloys Division. Kenneth H. Hannan was elected treasurer.

Dial, who has been executive vice president since 1951, joined Union Carbide in 1929. He became assistant secretary and assistant treasurer in 1939, secretary and treasurer in 1945, and vice president and director in 1949.

With the corporation since 1936, Remmers has been president of Electro Metallurgical Co since 1948 and president of United States Vanadium Co since 1950, both divisions of Union Carbide. Hannan, who joined Union Carbide in 1936, became secretary and assistant treasurer of the corporation in 1949.

Papp, Sward Elected VPs of G&W Electric

Andrew E. Papp has been elected executive vice president of G&W Electric Specialty Co, Chicago. C. W. Sward has been named vice president in charge of sales. Pearson F. Williams, who was made president of G&W in 1950, has been elected chairman of the company's board of directors.

Papp, who has been general manager since 1950, joined G&W in 1929. He has served the company in various capacities, including standards engineer, chief engineer, and assistant general manager.

Sward started with G&W in 1923 as a sales engineer. Since 1930 he has been sales manager and director of advertising and sales promotion for the company.

L. L. PERRY

Michigan G&E Names Perry a Vice President

L. L. Perry has been named vice president and general manager of Michigan Gas & Electric Co. He succeeds S. F. Massie, who has resigned.

Perry is a newcomer to Michigan G&E. Until this appointment, he served as general sales manager for Interstate Power Co, Dubuque, Iowa, which he has been associated with for the past 13 years. Prior to this, he was affiliated with Kansas City (Mo.) Power & Light Co and Wisconsin Power & Light Co.

Massie joined Michigan G&E in 1938.

Jackson Hoagland, adequate wiring specialist for Arizona Public Service Co, has been appointed sales promotion and advertising manager. He succeeds **A. W. Smith,** who has resigned to accept a position with the sales staff of Ebasco Services, Inc, New York. In 1949 Hoagland joined Central Arizona Light & Power Co, which was merged this year into Arizona PS (EW, Feb. 18, p 7). Smith's resignation followed 18 years' of service with Calapco.

J. A. Bardsley has been appointed assistant to the vice president in charge of sales for Highway Trailer Co, Edgerton, Wis. In another appointment **Harold A. Ranson** was made industrial relations director. Bardsley comes to Highway Trailer from Berkeley, Calif., where for the past three years he served as vice president and general manager of Trailmobile Co's West Coast operation. Ranson comes to Highway Trailer after serving ten years as personnel manager of National Enameling & Stamping Co, Milwaukee.

Luebbe Made Secretary of General Electric Co

Ray H. Luebbe has been elected secretary of General Electric Co and will continue also as vice president and general counsel. He succeeds William W. Trench, who retired recently after serving as secretary since 1928.

The company also elected Wayne H. Perry, formerly administrative assistant to the president, associate secretary. He will be in charge of operations of GE's Corporate Services Division with headquarters at Schenectady. Allen D. Marshall, formerly assistant secretary, will become manager of a new department to be established soon to administer company employee benefit plans. His headquarters will be in New York.

York-Hoover Promotes Ziegler to a New Post

Charles I. Ziegler has been elected vice president and general manager of the Body Division of York-Hoover Corp, York, Pa.

Ziegler, who has been a vice president since 1950, began his career with York-Hoover in 1921 as a salesman in the Body Division. In 1930 he was promoted to sales manager and in 1941 to assistant manager of that division. Five years later he was made an assistant to the president, a position he occupied until the recent promotion.

OBITUARY

Francis S. Benson, 56, an electrical engineer with Pacific Gas & Electric Co, San Francisco, Calif., died April 18 in his office in the company's building there. He started with PG&E in 1919, advancing to assistant engineer in the electric distribution department.

Andrew J. Roberts, 53, who was employed by Georgia Power Co for more than 25 years, died April 12 at Atlanta, Ga. At the time of his death, Roberts was serving as a construction engineer on four steam plants being built in Georgia.

LET'S LOOK AT THE "MK-40"—*your best buy*

AND THE STANDARD OF COMPARISON!

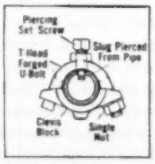
Universal acceptance by operating engineers is abundant proof of the sound engineering principle incorporated in the design which provides ample material for heat dissipation and assures high thermal conductivity.

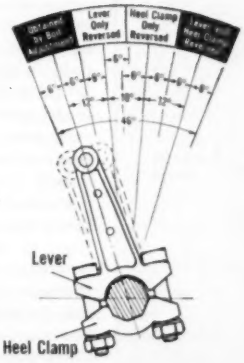
Its simplified construction and improved high pressure contacts at both ends of the blade maintain the highest mechanical and electrical performance under the most severe weather and service conditions.

You can select a Delta-Star group-operated "MK-40" switch for every type of service, from 7.5 through 230-kv and current ratings to 5000 amperes.

OPERATING MECHANISM

Switch and control bearings have greaseless, non-rusting ball bearings insuring free operation under all weather conditions. Self-piercing set screws on clamp type U-bolt fittings eliminate threading or drilling of pipe. Completely adjustable lever can be installed or removed without disturbing rotating insulator.





CURRENT PATH

From terminal to terminal the number of current interchange surfaces are reduced to an absolute minimum. Both ends of the floating tubular blade have the same type of high pressure contact backed by independent pressure applying members. No other moving contact surfaces or springs; everything in plain view for visual inspection.

BLADE MECHANISM

Fully controlled blade is actuated by a 45-degree bearing mechanism replacing cranks, levers, links and cams. It converts motion of operating insulator to a vertical lifting and rotating motion of the blade with just the right mechanical advantage. Blade locks automatically in both opened and closed positions.

CONTACTS

Current carrying function of the contacts is independent of the pressure applying members to permit the use of materials with the best electrical and mechanical characteristics for each function. Hand drawn copper shoes have heavy silver inlays. Long, beryllium copper springs maintain uniform contact pressure and carry no current.

WHEN YOU WANT THE BEST IN HIGH VOLTAGE SWITCHES SPECIFY THE "MK-40"

DELTA-STAR ELECTRIC COMPANY

DIVISION OF H. K. PORTER COMPANY, INC.

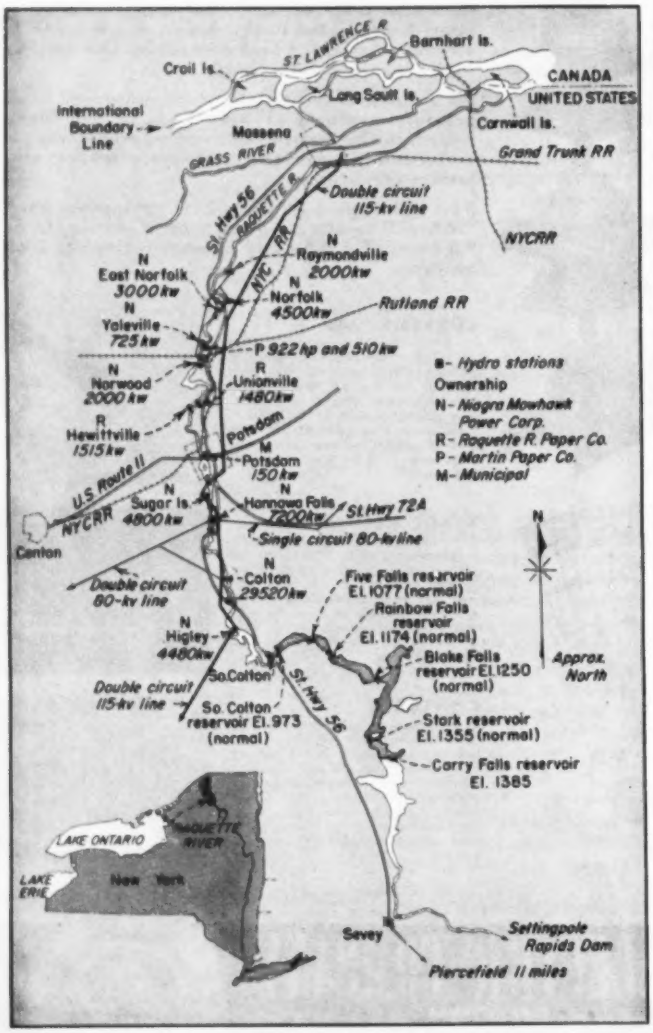
2437 Fulton Street • Chicago 12, Illinois

DISTRICT OFFICES IN PRINCIPAL CITIES

Five-Station Hydro Project Will Harness Raquette River to the Full

Niagara Mohawk Power Corp will add about 100,000 kw when automatic, peak-load stations in northern New York are completed in 1957

HAROLD I. HOWELL, System Project Engineer
Niagara Mohawk Power Corp, Buffalo, N. Y.



RAQUETTE RIVER PROJECT will add about 100,000 kw in five new hydro stations. Capacity of installations on the river operated by Niagara Mohawk will be increased to over 161,000 kw. Each new station will be an automatic, peak load plant controlled from the Colton Station

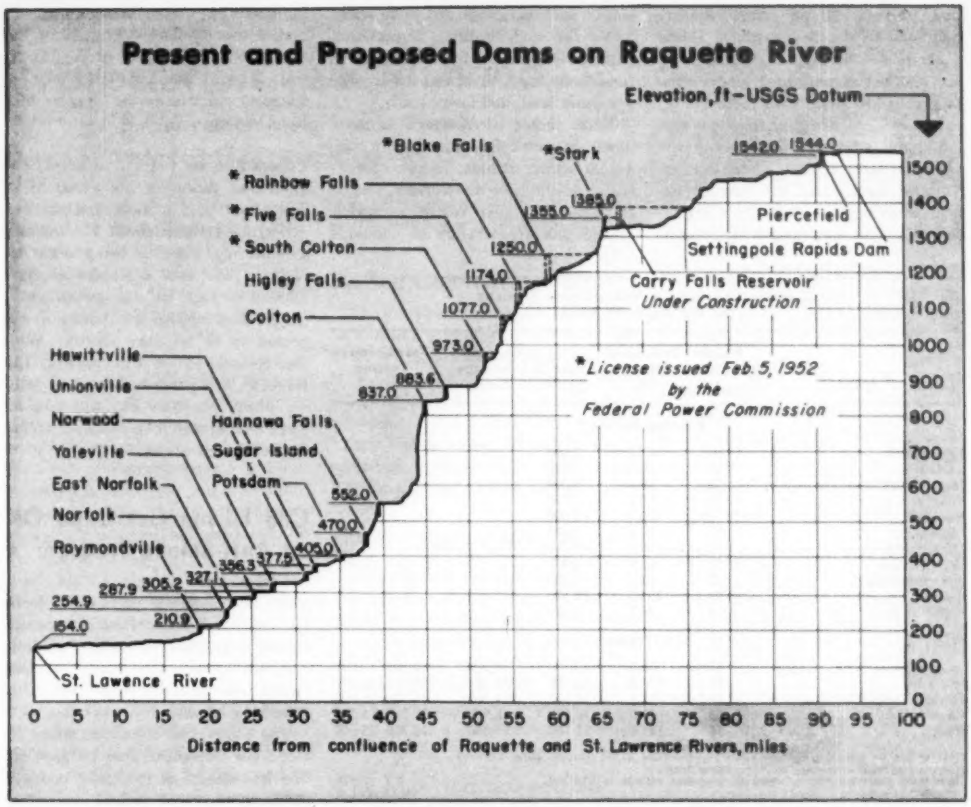
Automatic operation as peak load plants, and regulation of run-off water to permit increased production are features of a five-plant, 100,000-kw hydroelectric project now under construction by Niagara Mohawk Power Corp. Located on the Raquette River in northern New York, the project was begun this year after the company had been granted a 50-year license.

Under the terms of this license, all stations are to be completed by May 31, 1957. Total cost of the project, including an additional regulating dam and reservoir at Carry Falls, is estimated at $25.5 million.

Part of a Plan . . . Construction on the Raquette River is part of a system-wide plan of capacity additions by Niagara Mohawk. This plan includes completion this year of half the capacity of the new 320,000-kw Albany steam station and the 30,000-kw Stewarts Bridge hydro project on the Sacandaga River in eastern New York. A 160,000-kw addition to Huntley Station near Buffalo is scheduled for completion in 1953 and the second two Albany units, in 1954. These additions plus one plant of the Raquette project will add two hydro plants to the company's existing 82 hydro stations for an aggregate hydro capacity of 1,016,600 kw and will add one steam-electric station to the existing six stations for an aggregate steam capacity of 1,697,000 kw in 1954. Total capacity in 1954 will be 2,713,950 kw.

Physical characteristics of the Raquette River make it unusually well suited for hydroelectric development. A tributary of the St. Lawrence, it is 160 miles long and has a 1,269 sq-mile drainage area. Above Piercefield (See map) the watershed consists of a high mountainous plateau with large lakes and swamps.

From Piercefield down to the St. Lawrence, the river flows through a narrow valley and falls 1,388 ft in 91 miles (See profile). The lower end of this section has been fairly well developed. There are already 11 hydro stations operated by Niagara Mohawk in this section of the river. Accompanying table lists character-



PROFILE of Raquette River from confluence with St. Lawrence to Settingpole Rapids Dam shows how new project completes harnessing of river. Total drainage area of the stream is 1,269 sq miles, of which 723 sq miles above Settingpole Rapids has many lakes and marshes

istics of plants operated and under construction by Niagara Mohawk.

Work is Proceeding . . . Clearing and preparing the site at the South Colton plant, first of the five, is already under way. Immediately upstream from the five hydro sites, construction is about one-third completed on Carry Falls dam and storage reservoir.

The Carry Falls project consists of a concrete dam about 830 ft long and 70 ft high. Together with five earth dikes, it will create a storage reservoir of about 114,700 acre-ft. This reservoir will withhold a portion of the spring runoff for release during low-flow summer and autumn months. This regulation will increase annual power production of present downstream power plants by some 31 million kwhr. A license for this project was granted to Niagara Mohawk by the Federal Power Commission on Feb. 1, 1951.

Long period regulation will be effected by the Carry Falls reservoir. Headwater ponds for short-period regulation will be created by gravity-type concrete dams and earth dikes at each of the five hydro stations.

The five new powerhouses will be similar in design and construction and will house identical equipment. It is expected that this will result in substantial savings, not only in engineering and construction but also in operation and maintenance. Each will house one Francis-type, 120-rpm, vertical-shaft turbine directly connected to a 3-phase, 60-cycle synchronous generator and direct-connected exciter. The turbines are to be in three sizes, one size for the three higher head developments and two smaller sizes for the lower head developments (See table). Generator and transformer ratings follow the same plan.

Each turbine will be equipped with a cabinet-type governor actuator located on the generator floor. This device is capable of operating wicket gates through a servomotor over the full gate range in 5 sec and will be sensitive to a speed variation of 0.25%.

A transformer station at each generating plant will step up generator voltage to 115 kv. Each station will be connected into a common transmission line which in turn will be connected to Niagara Mohawk's system at the Colton Station.

Peak Load Plants . . . The new stations normally will be operated in synchronism during each peak load period. During peak periods it is planned that about 2,600 cfs of water will be drawn from Carry Falls reservoir and discharged through each plant. Higley Falls pond during periods of peak load operation will reregulate the river flow to supply water to the downstream plants. Present

plans do not call for future capacity additions to the five stations. Initial capacity will be high as these stations are planned as peak-load plants on a relatively low daily load factor.

Stations are to be unattended with automatic operation through supervisory control from Colton Station. Type of control had not been chosen at time of writing. Indicators at Colton will show kw, rkva, kwhr, speed, station service voltage and pond water levels for each station. Supervision from Colton will include these operations: start, stop, raise and lower voltage, raise load, and lower load.

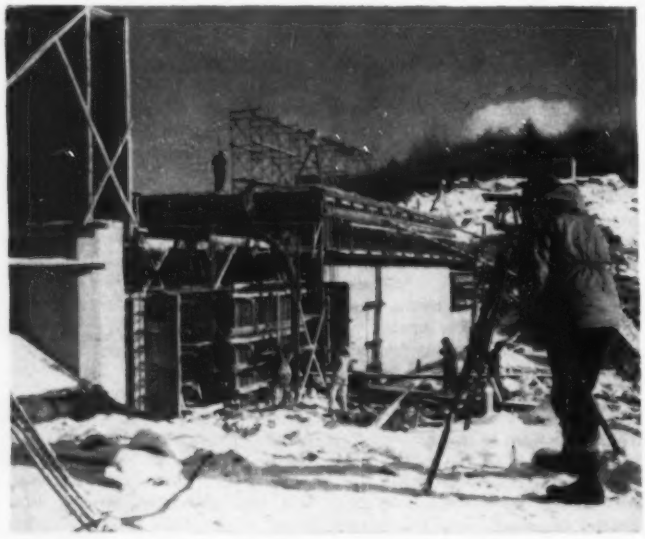
Each station is designed to shut down automatically under certain conditions which include: failure of generator windings or transformer, loss of excitation, excessive voltage or speed, or excessive temperature of windings or bearings. Automatic, supervisory and semi-automatic operation of hydro stations, with float or clock control in different combinations, are accepted practice on the Niagara Mohawk system.

Contract to be Let . . . Carry Falls Dam and Reservoir are expected to cost about $2.5 million, and the five generating stations about $23 million. Engineering work is being done by Niagara Mohawk engineers in Buffalo. Contract for the construction of the first of the five plants is expected to be let very shortly. With the completion of this project, the Raquette River will be harnessed fully for power purposes and will take its place among the "hard working rivers" of the United States.

Characteristics of 16 Hydroelectric Stations On the Raquette River

Name	Height of Dam (ft)	Developed Head (ft)	Capacity† (kw)	Generator voltage (volts)	Transformer‡ rating (kva)
Existing Plants					
Raymondville	16	22.2	2,000		
Norfolk	20	42.4	4,500		
East Norfolk	18	32.0	3,000		
Yaleville	12	12.0	725		
Norwood	16	20.4	2,000		
*Unionville	17	21.6	1,480		
*Hewittville	20	19.0	1,515		
Sugar Island	37	62.9	4,800		
Hannawa Falls	40	82.1	7,200		
Colton	27	285.0	29,520		
Higley Falls	34	46.2	4,480		
New Plants					
South Colton	45	85.0	19,350	11,500	16,125/21,500
Five Falls	55	104.0	22,500	11,500	18,750/25,000
Rainbow Falls	80	102.3	22,500	11,500	18,750/25,000
Blake Falls	50	69.0	14,400	6,900	12,000/16,000
Stark	40	105.0	22,500	11,500	18,750/25,000

*Not owned by Niagara Mohawk but they purchase entire output under contract.
†Capacity of new stations is at 90% power factor.
‡One transformer per station steps up generator voltage to 115 kv.



CARRY FALLS DAM, plus five earth dikes, will impound spring run-off water in a reservoir about eight miles long. Regulation of the river flow at Carry Falls and at another point downstream will permit full use of maximum capacity. Dam structure was begun last winter

Con Edison Get Depa OK on Anti-Smoke Program

Consolidated Edison Co of New York has received permission from the Defense Electric Power Administration to proceed with a $3.7 million program to improve smoke control installations at three New York City generating plants.

The utility had submitted plans to Depa last November but its application was denied at that time because of a shortage of critical materials (EW, Dec. 17, p 78; Dec. 31, p 51). Improvement in the materials situation prompted Depa to give Con Ed the go-ahead on its anti-smoke program.

The program calls for the rebuilding of existing cinder-catching installations and the addition of supplementary equipment at the Hell Gate, Waterside, and East River stations. Each of these stations is now equipped with smoke control devices which were the best available at the time they were installed.

Con Ed expects to make half of the planned installations during the summer of 1953 and the remainder during the summer of 1954. Since much of the work can be done only when the boilers are taken out of service, it has to be scheduled during the summer.

Since 1937, Con Ed has spent more than $16 million in a continuing smoke control program. Expenditures to modernize existing equipment and to install devices at new plants is expected to total $8 million in the next few years.

Depreciation Talk Planned . . .

. . . for annual conference of Accounting-Business Practice Section of Northwest EL&P Association set for May 22-23

Utility depreciation is slated for top billing at the annual conference of the Accounting and Business Practice Section of the Northwest Electric Light & Power Association scheduled for May 22-23 at the Medford Hotel, Medford, Ore.

The subject will receive attention from E. C. Alford, Portland General Electric Co, when he expresses his viewpoint of depreciation practices of member companies. A. H. Kuhn, vice president of Pioneer Service & Engineering Co, Chicago, and a member of the Edison Electric Institute Depreciation Committee, will also talk on the topic.

To Discuss IBM Billing . . . A panel discussion on customer billing with non-International Business Machine equipment will take place under the guidance of Ralph Lawlor, Pacific Power & Light Co, and Henry Mann, Utah Power & Light Co. The procedure of handling customer billing with IBM equipment will be discussed by Carl Gieseker, Washington Water Power Co, and Thomas Chambers, British Columbia Electric Co, Ltd. Chambers will also talk on the benefits of and objections to bi-monthly billing.

Credits and collections questionnaires will be discussed by Dick Schatz, WWP, who is a past president of the National Retail Credit Association.

A bi-weekly payroll plan discourse will be held under the direction of Giesecker.

Trip Planned . . . Arrangements have been made by the association for a trip to California Oregon Power Co's North Umpqua Project, where three hydro plants have just been completed and two are under construction.

For the month of May the Northwest association has planned another conference, which is being sponsored by the Personnel Section. This parley, which will be held in conjunction with a Safety Meeting, is set for May 19-21 at Vancouver Hotel, Vancouver, British Columbia. Pension and welfare plan administration problems and accident statistics will be discussed.

To See Connecticut Story

The Connecticut Valley story will be told in a motion picture which will be shown at the spring meeting of the New Jersey Utilities Association to be held May 16 at Seaview Country Club, Absecon, N. J. The film, entitled "Your Valley—Your Future," will be presented through the courtesy of the Hartford Electric Light Co.

IES To Hold Conference

"Illumination—a Dynamic Force in Pittsburgh's Redevelopment" is the theme of the Illuminating Engineering Society's East Central Regional Conference, which will be held May 21-23 at Hotel Webster Hall, Pittsburgh. Sam Hibben, national president of IES, will be a guest speaker.

EEI Meeting Scheduled

The activities of the seasonal hazards subcommittee will be given attention when the Accident Prevention Committee of Edison Electric Institute meets May 22-23 at the Indianapolis (Ind.) Athletic Club. W. E. Brown, Consolidated Edison Co of New York, Inc. is chairman.

PEA Groups to Meet

Telemetering and communication requirements for interconnection operation will be discussed at the spring meeting of Pennsylvania Electric Association's Systems Operation Committee planned for May 22-23 at Allenberry Lodge, Boiling Springs, Pa.

Plans Paris Parley

C.I.G.R.E. (International Conference on Large Electric High-Tension Systems) will hold its 14th biennial session at Paris, France, May 28-June 7. F. Attwood, 50 Church St., New York 7, will furnish further information upon request.

CALENDAR

Edison Electric Institute
Purchasing-Stores Committee, Roosevelt Hotel, New Orleans, La., May 11-14; Accident Prevention Committee, Indianapolis Athletic Club, Indianapolis, Ind., May 22-23; 20th Annual Convention, Cleveland Public Auditorium, Cleveland, Ohio, June 2-4.

Interstate Power Club
Hotel Martinique, New York, May 12.

***Tennessee Valley Public Power Association**
Five-Day Meter School, University of Tennessee, Knoxville, Tenn., May 12-16. Sponsored jointly with Department of Electrical Engineering, University of Tennessee.

Nashville Electric Service
1952 Electric Show, Electric Center Bldg., Nashville, Tenn., May 12-17; co-sponsored by Nashville Electrical Dealers Association.

Northwest Electric Light & Power Association
Business Development Section, Chinook Hotel, Yakima, Wash., May 12-14; Personnel Section, Vancouver Hotel, Vancouver, B. C., May 19-21; Accounting-Business Practice Section, Medford Hotel, Medford, Ore., May 22-23.

Pennsylvania Electric Association
Electrical Equipment Committee, Hotel Roosevelt, Pittsburgh, Pa., May 15-16; Spring Meeting, Systems Operation Committee, Allenberry Lodge, Boiling Springs, Pa., May 22-23; Spring Meeting, Transmission-Distribution Committee, Irem Temple Country Club, Dallas, Pa., May 22-23; Spring Meeting, Prime Movers Committee, Tidewater Inn, Easton, Md., May 28-29.

New Jersey Utilities Association
Spring Conference, Seaview Country Club, Absecon, N. J., May 16.

Illuminating Engineering Society
East Central Regional Conference, Webster Hall Hotel, Pittsburgh, Pa., May 21-23; Northeastern Regional Conference, Hotel Preston, Swampscott, Mass., June 19-20.

***Missouri Association of Public Utilities**
1952 Convention, Hotel Missouri, Jefferson City, Mo., May 27-28.

C.I.G.R.E.
(International Conference on Large Electric High-Tension Systems), 14th Biennial Session, Paris, France, May 28-June 7.

National Association of Electrical Distributors
44th Annual Convention, Hotels Ambassador-Chelsea, Atlantic City, N. J., June 9-12.

International Organization of Standardization
Triennial Meeting, Columbia University, New York, June 9-21.

Pacific Coast Electrical Association
Annual Convention, Hotel del Coronado, Coronado, Calif., June 11-13.

American Society of Mechanical Engineers
Semi-Annual Meeting, Sheraton-Gibson Hotel, Cincinnati, Ohio, June 15-19.

American Institute of Electrical Engineers
Summer General Meeting, Hotel Nicollet, Minneapolis, Minn., June 23-27.

American Society for Testing Materials
Annual Meeting, 50th Anniversary, Hotels Statler-New Yorker, New York, June 23-27.

National Retail Credit Association
International Consumer Credit Conference, Statler Hotel, Washington, D. C., June 23-26.

Canadian Electrical Association
Annual Convention, Banff Springs Hotel Banff, Alberta, June 30-July 2.

*Addition this week.

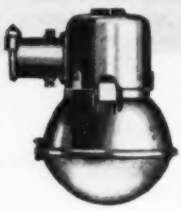
For every part of town...

L-M LUMINAIRES

make cities brighter, safer

L-M Ovalite—Mercury Vapor Unit. Newly developed optical system assures effective light utilization and good distribution on the street. Mercury vapor lamp is in horizontal position, high up in the reflector to minimize glare. Takes 11,000, 15,000 or 20,000 lumen lamp. Optional magnetic arc control feature keeps arc centered.

L-M Spherolite This famous L-M unit is widely known for its high efficiency, versatility, and many other desirable features. Takes up to 20,000 lumen mercury vapor or 10,000 lumen incandescent lamps.



L-M Spherolite Jr. For better neighborhood lighting at an economical neighborhood price. Interchangeable with Spherolite metal or porcelain heads, permitting low cost installation of the Junior and economical replacement later with the larger luminaire if traffic growth warrants. Has many of the Spherolite features, offers many light distribution patterns.

L-M Directolites Efficient, open-type luminaires that provide scientifically designed light control at a cost little more than that of a radial bowl. Available in symmetric or asymmetric types.

● L-M provides complete street lighting equipment for all sizes of communities and all kinds of neighborhoods. There are incandescent or mercury vapor units for white way lighting. There are smaller units for residential and outlying sections. A wide variety of reflectors, deflectors and glassware provides complete control for every recommended IES light distribution pattern.

Also available are standards, brackets and mast arms, transformers, control and service equipment.

L-M street lighting engineers have years of experience and L-M's engineering service can provide the answer to your street lighting application problem.

WHICH OF THESE BULLETINS DO YOU WANT?

- ☐ Spherolite
- ☐ Directolite
- ☐ Mercury Vapor Lighting Units
- ☐ Spherolite Jr.
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- ☐ Street Lighting Standards
- ☐ Brackets, Mast Arms, Accessories
- ☐ Control Equipment
- ☐ Protective Lighting for industrial plants

Ask the L-M Field Engineer for the information you want, or write Line Material Company, Milwaukee 1, Wisconsin (a McGraw Electric Company Division).

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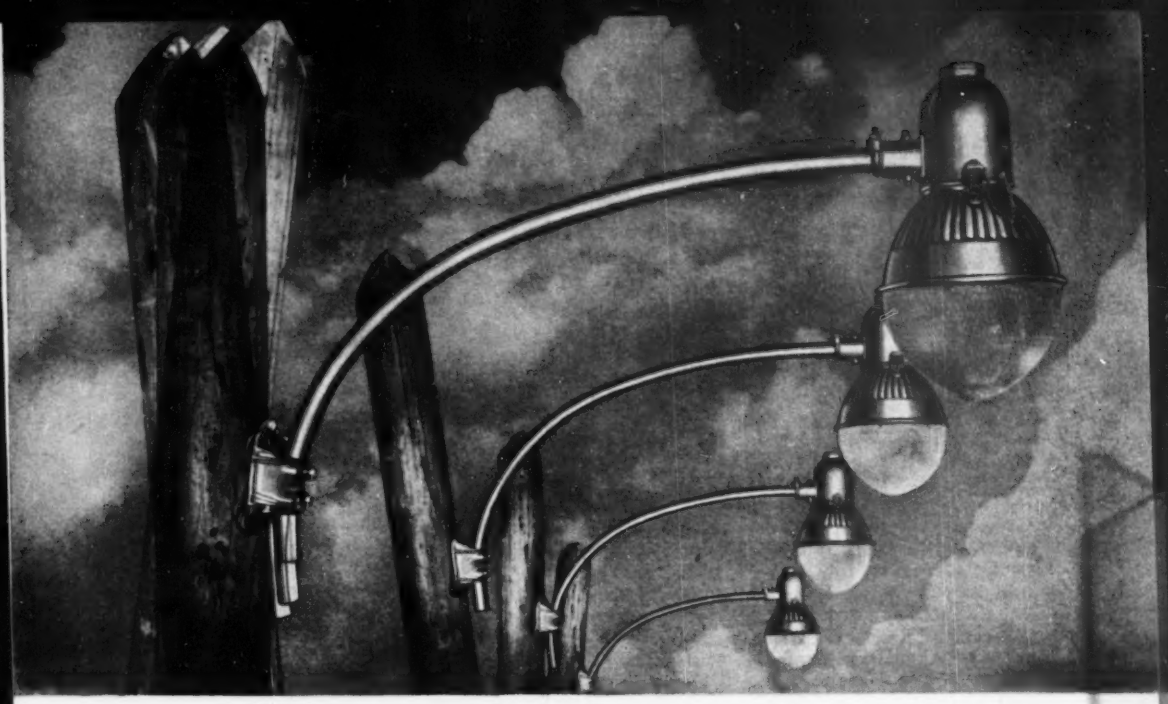
LINE MATERIAL

Street Lighting



Luminaires Easier to Align With L-M's New Adjustable Bracket

Features integral plumbing for wide ranges of pole rake . . . clean, modern lines . . . easy installation and wiring . . . minimum pole-space requirement.

Really rigid: **the pole plate is a sturdy casting, either steel or aluminum, rigidly held to the pole with a machine bolt at the top and two lag screws below. Two U-bolts grip the bracket firmly. It requires a minimum of pole space.**

Here is a new single curve upsweep bracket that makes it easy for you to plumb the luminaire. The bracket has pleasing, functional design; it is made in either steel or aluminum; it is easy to install and wire; and it is available with all conventional end-fittings.

Easy to adjust: the curved pipe is clamped into the pole plate with two U-bolts. By moving the pipe up or down, you change the angle to compensate for almost any degree of pole rake. Then you tighten the U-bolts, and the bracket remains rigid in the desired position.

Easy to install: the pre-wired assembly is attached to the pole by means of an open-slotted pole plate, which fits over a single machine bolt at the top. The entire weight of the assembly is firmly held this way, while you install two lag screws at the bottom of the pole plate. This mounting requires a minimum of pole space.

Easy to wire: the one piece bracket is a single curve, with smooth contour. There are no sharp bends or extra units through which the wiring must be guided. You just slide the wire right through—it saves time and helps assure a good job. Ask the L-M Field Engineer for full information, or write Line Material Co., Milwaukee 1, Wisconsin (a McGraw Electric Company Division).

LM **LINE MATERIAL**
Street Lighting

84

Westinghouse Raises Wages...

... for its 15,000 non-union employees but also makes same offer to four unions which represent over 75,000 workers

Wage increases to compensate for the rise in the cost of living since last Sept. 15 have been granted, effective May 1, to approximately 15,000 employees of the Westinghouse Electric Corporation who are not represented by unions. This same offer was made simultaneously to four unions representing more than 75,000 employees.

The increase will cost the company approximately $4.5 million annually if accepted by the unions. The offer was made to representatives of the International Union of Electrical, Radio and Machine Works, CIO; United Electrical, Radio and Machine Workers of America, independent; Federation of Westinghouse Independent Salaried Unions; and the International Brotherhood of Electrical Workers, AFL.

Wages Pace Living Costs . . . Robert D. Blasier, vice president in charge of industrial relations, said the higher pay would keep Westinghouse wages current with the inflation in living costs. The latest increase is the fourth granted by Westinghouse since September, 1950. The three previous increases totaled 26¢ per hour in straight time earnings.

The increase to both union-represented and non-union groups of employees must be approved by the Wage Stabilization Board. Excluded from the offer are union-represented employees in some scattered localities where local contracts differ from national agreements with the four large unions.

Three Groups Affected . . . Blasier explained that the increases made or offered to these three general groups of employees are:

1. Non-exempt salaried employees (clerical) would receive increases ranging from $1.75 to $4.35 per month.

2. Exempt employees (supervisory, professional and administrative) would receive an increase of 1% or the same increase as non-exempt employees whichever is greater.

3. Hourly paid employees (largely production personnel in plants) would receive increases ranging from 1¢ to 2½¢ an hour.

'Fringe' Benefits Present Problem for Revenue Men

The government's Bureau of Internal Revenue has up for study the question of whether the cost of health benefits, as distinguished from wages or income received by an employee from a company-paid welfare plan or a trust fund, are taxable as income to the employee.

The BIR may have to ask Congress for clarification in the tax laws. Some problems involved are: How to figure the cost of the benefits, like those received by mine workers under the UMW welfare plan; how to figure the cost to be counted as taxable income when an employee pays for part of the cost through joint employee-employer contributions to a fund or plan.

The tax bureau already has pinned down the question on several other types of "fringe" payments to workers. Among them:

1. Premiums paid by an employer on life insurance for an individual employee are taxable income for the employee.

2. Group life insurance premiums paid by an employer are not taxable income for the employee, except where the insurance carries a cash surrender or loan value.

3. Blue Cross premiums paid by an employer are not taxable income for the employee.

4. Money paid under an accident or health insurance policy is not taxable income for the employee.

5. Contributions paid by an employer into a trust fund for group insurance, vacation benefits, or health plan are not wages subject to income tax withholding.

6. Money actually distributed to an employee from such a trust fund is taxable income for the employee.

LABOR BRIEFS

A formal hearing into the Consumers Power Co wage dispute will be held May 12 in Jackson, Mich., by Governor Williams' special fact finding board.

The U. S. Labor Department has predicted that the supply of engineers in the next four years will drop, even though demand for them will stay at record heights. It is due to the supply of new college graduates declining, as veterans training subsides from its 1946 peak.

Utility Workers Union of America, CIO, has won a National Labor Relations Board conducted election among the employees of the Black River Electric Cooperative, Black River, Mo.

Greater participation by professional engineers in public affairs is urgently needed during these critical times, Glenn B. Warren, Schenectady, N. Y., general manager of General Electric Co's turbine division said recently before a dinner meeting on the University of Wisconsin's fourth annual Engineers Day.

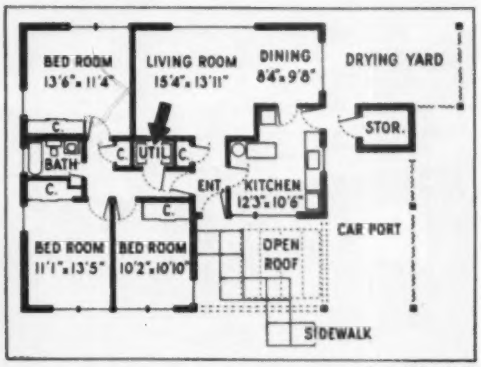
For interesting booklet, "Facts and Figures on the Westinghouse Employe Stock Plan," write Westinghouse Electric Corp, 40 Wall St., New York 5.

IBEW Wins Over UWUA in Pacific G&E Election

The AFL International Brotherhood of Electrical Workers won out over the CIO Utility Workers Union of America again in a National Labor Relations Board run-off election to determine union representation for about 3,000 Pacific Gas & Electric Co clerical workers.

Clerical employees gave 1,372 votes to IBEW and 436 to UWUA. In the first election the results were 994 for the IBEW, 716 for the UWUA, and 364 for no union, with the IBEW receiving a plurality but not a majority of the votes cast.

Merritt Snyder, IBEW international representative, said the victory will give the AFL jurisdiction over 14,575 of some 16,000 PG&E employees eligible for membership.



General Electric Co

BUILT AROUND HEATING AND COOLING equipment, house has over-ceiling ducts for distribution of warm and cool air

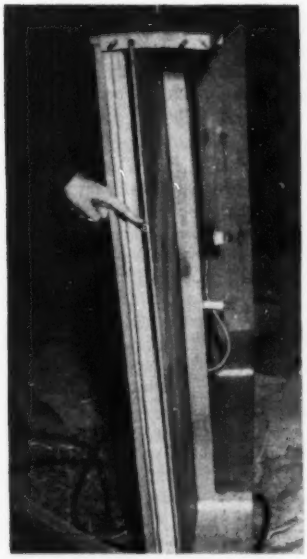
Low Cost Homes Can Have Air Conditioning, Too

Complete air conditioning in a 6-room house built to sell for $12,500 features a residential development in Dallas, Texas. The project comprises 210 houses, of which the first two were opened for inspection in March. Visitors were enthusiastic over the built-in cooling system.

The air conditioning equipment consists of a gas-fired warm air furnace and a 2-hp cooling unit tied into a common duct system and with year-round thermostatic control. As installed in the Dallas development the combined system costs $1,500. Operating costs are estimated at $93 for cooling and $40 for heating in an average Dallas year.

Electric Panel Brooder Produces Better Chicks

WILLIAM R. KOLLMAYR, Farm Service Director, New Jersey Power & Light Co, Dover, N. J.



ELECTRIC PANEL of conductive rubber is indicated inside a 4x6-ft brooder which has one side removed and is standing on end

A chick brooder of an electric low-temperature panel type produces a high degree of uniformity of heat with a minimum of effort on the part of the operator. In addition to being economical and automatic the brooder increases the quality of brooded chicks, is safe since the fire hazard is reduced to a minimum, and has multiple uses such as for milk house heater, home heater, and turkey, lamb, or pig brooders. Also it can be easily disassembled and stored and its components have a definite re-use or re-sale value.

Design of the 4x6-ft brooder consists of two 3x4-ft conductive rubber panels operable on 115 v, or 230 v when both are series connected. Power consumption is 528 w or 22 w per sq ft. Panel surface temperature is 137 F maximum. A panel temperature of 110 F gives an air temperature to the brooder of 85 F at 45 F room temperature. Other equipment includes a thermostat with 60-250 F range (25 amp at 250 v, 35 amp at 125 v) suitable for a group of 10 brooders at 250 v or 8 at 125 v, a 25-w or 15-w incandescent lamp for an inside constant attraction light, asbestos wiring on brooder, pilot light, thermometer, insulation boards, plywood strips, four 18x3x½-in. wood corner supports and necessary bolts. Total cost assembled for one brooder with control thermostat is approximately $60, and an average of $47 each for group operation without thermostat.

Results show that chicks in the electric panel brooder are 50% larger than in a coal-fired, hot-water-floor brooder. One electric panel is suitable for 250 chicks. In one installation this brooder starting with 500 chicks had a low mortality of 3 chicks compared to a 2,000-chick start and 200-chick mortality with coal-water brooder in the same pen.

Good ventilation is provided because no curtains are required on the hover. Good feathering is obtained since the brooding heat does not affect room temperature.

Upper deck of the brooder was designed for additional floor space for chicks, poults, etc. Newspapers can be placed on top to start and litter added later. This increases the floor area by 24 sq ft in the case of a 4x6 ft brooder.

Sylvania Electric Products, Inc.

POINTING OUT FEATURES of modern school lighting is Myles McCabe, CIPSCo. Interested audience is E. V. Scott, assistant supervisor, Quincy school system; R. H. Waddell, Sylvania; Betty Bernzen, teacher, and R. N. Stacy, principal, Dewey school

MYLES McCABE, Central Illinois Public Service Co, Springfield, Ill.

School Relighting—Quincy, Ill.

With 80 of its 136 schoolrooms now having modern lighting, the city of Quincy, Ill., is well along on its project for ending classroom eyestrain.

The program got under way in 1949. Plans for structural changes in one of the oldest schools of the system—all except one in Quincy were built before 1925—were being made. The architect included relighting in them. Plans for rewiring and relighting another school were prepared by CIPSCo at the same time. The two jobs were finished in the summer of 1949. Since then the same work has been done in four other schools and in part of another.

None of the schools had adequate entrance capacity. Some were wired with knob and tube while others, built later, had conduit. New entrances of sufficient capacity were installed in all of the buildings. All entrance and feeder wiring was run in rigid conduit and all branch circuits in thinwall conduit and wiremold. No wire smaller than No. 12 was used in any of the jobs.

The fixture selected for the classrooms is a two-lamp, 40-watt louvered-bottom fluorescent unit of the direct-indirect type. The Board of Education was unwilling to install lighting to meet only the present recommended minimum of 30 ft-c. They elected to install three rows of seven fixtures each in each of the 24 ft x 32 ft classrooms. This layout will produce approximately 45 ft-c in service. The fixtures, except in some low ceiling basement rooms, are stem mounted 10 ft 6 in. above floor. The outside row is located 4 ft from window wall—the inside row 3 ft from blackboard wall.

The relighting program is being coordinated with a painting program. Each classroom has an off-white matte finish ceiling of 80% reflectivity. The walls are finished in various pastel colors of 60%, or better, reflectivity. The floors of the rooms are light in most cases and the desks are being replaced with the newer movable desks with light finishes. The light finishes of the walls, floor and furniture help produce a balanced brightness pattern necessary for comfort in seeing and insures better distribution of the lighting in the room. Incandescent lighting was installed in the gymnasiums, auditoriums, hallways, rest rooms, and storage rooms.

60,000 Dealers in Water Systems Month

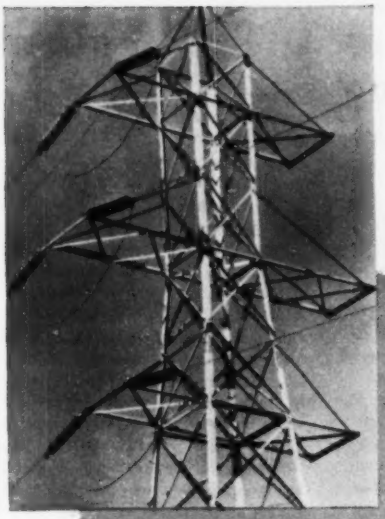
Reports to distributors and manufacturers indicate that more than 60,000 dealers will tie in with the nationwide promotional program, "National Water Systems Month", to be repeated in May by the National Association of Domestic and Farm Pump Manufacturers. Manufacturers began during the middle of April sending five-color posters to their distributors who in turn make them available to dealers. "This Is National Water Systems Month" the poster proclaims, and then continues with the advice "Buy an Electric Water System of Adequate Capacity."

The poster features the slogan of the campaign "Better Health—Better Living—Better Production." The three points in the slogan are illustrated by a picture of a farm housewife in a modern kitchen made possible by an electric water system and a picture of cows in a modern barn equipped with drinking cups. Dominating the poster is a picture of a small child enjoying his bath.

Commercial Cooking Easy to Sell Now

Lack of a man on the sales staff with knowledge of commercial electric cooking is no longer even a remotely valid excuse for any utility to advance as reason for not promoting such profitable business. A man who never saw a fry kettle in his life can now go out and sell a complete electric food service installation with the greatest of ease. He can, that is, if he has studied a little red-covered booklet recently produced by the EEI Commercial Cooking Committee under the whiplash of Shelly Sansbury.

The booklet, "Your Answer to Commercial Cooking," is available from the Institute at prices scaled by quantity from 70¢ to 45¢ per copy. Its 52 pages are packed with terse, factual sales ammunition on the economies of electricity in specific references to operations of all kinds of kitchen and counter cooking equipment. Included also is information on equipment needed for different types of food service operations, on kitchen and eating space layouts, and on wiring requirements of equipment.



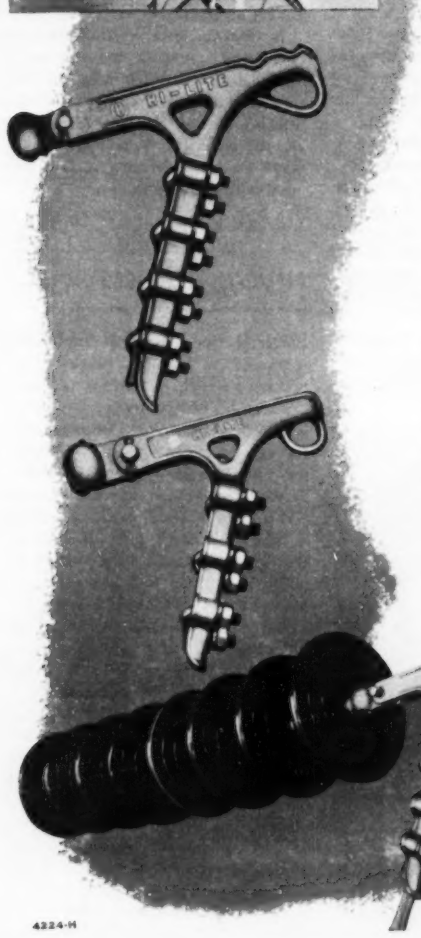
No Jumper Splices
No Connector Troubles
No High Costs...

When You Build Lines With O-B HI-LITE STRAIN CLAMPS

Jumper loop splices in transmission circuits often prove unsatisfactory as permanent, low resistance connections. With O-B Hi-Lite clamps which permit stringing through strain points, you can eliminate these sources of potential trouble by using uncut conductor.

Since only a standard hand wrench, no special skill, and very little time are needed for installation, attractive savings can be made in construction costs. Once installed, these clamps may be inspected at any time for permanent tightness either by hand or by hot stick.

Economical installation applied to a basically low cost clamp enables you to build strain locations at a definite saving. Design of the O-B Hi-Lite strain clamp, utilizing continuous uncut conductor, keeps these strain points free of trouble. Cash in on these O-B Hi-Lite advantages when you plan construction of your next transmission line.



Ohio Brass

MANSFIELD • OHIO

4224-H

IN CANADA: CANADIAN OHIO BRASS CO., LTD., NIAGARA FALLS, ONT.

SEC Seeks Cumulative Voting

AG&E is advised if such a proposal for electing directors is not adopted, commission might delay financing plans

The Securities and Exchange Commission is requesting management of American Gas & Electric Co to ask stockholders to favor cumulative voting of directors at the company's annual meeting to be held on May 20 in New York City.

Under the cumulative voting plan, the stockholder is permitted to vote as many shares as he holds, multiplied by the number of directors to be elected, cumulatively for one or more directors. Thus, if a stockholder owns 100 shares, and there are ten directors up for election, the stockholder may vote the 1,000 shares for one of the directors or split them among two or more directors as he elects.

Opposes Cumulative Voting . . . In the past AG&E management has opposed cumulative voting. In its 1952 proxy statement to stockholders, the company said: "The management is not convinced that the advantages generally asserted for cumulative voting outweigh the possibilities for its abuse. However, in view of the position taken by representatives of the SEC, it is believed to be in the best interests of the company to adopt this proposal." In the 1951 annual meeting, stockholders of AG&E defeated by a wide margin a stockholders' proposal for such a charter amendment.

Advantages and Disadvantages . . . Under this voting system, it is claimed that the minority stockholders can get representation on the board in case they are opposed to any of the management's policies. On the other hand, opponents argue that such representation could be unfriendly to the interests of the majority stockholders and to the company.

In a letter, reproduced in the AG&E's proxy statement sent to stockholders, recently the director of the Public Utilities Division of the SEC advised the company:

"As has been indicated in discussions with representatives of your firm, it is our belief that the charter of American Gas & Electric Co does not conform to the standards which the commission has evolved for registered holding companies in the course of its administration of the Public Utility Holding Company Act of 1935. In order to bring the charter of American Gas & Electric Co into conformity with the standards of the Public Utility Holding Company Act, we believe that the charter should be amended in the following respects:

1. To provide for the annual election of directors;

2. To provide for preemptive rights which may be limited along the lines of preemptive rights provisions previously approved by the commission; and

3. To provide for cumulative voting in the election of directors.

"Such amendments can, of course, be effected by the company on its own initiative by filing a declaration for that purpose with the commission and obtaining the necessary affirmative votes of the company's stockholders.

Could Stall Hearings . . . "Unless the company initiates such action and obtains the affirmative vote of the stockholders, we would regard it as necessary to raise these questions in conection with applications or declarations which may be filed by the company, or to recommend that the commission proceed on its own motion to place these matters in issue and take the necessary corrective action. We appreciate that such questions might require an extended hearing and that, if they were raised in connection with a matter such as a financing application, the incident delay might materially affect the planned scheduling of such financing. We have therefore thought it appropriate to give you our views on these matters at this time so that you may consider whether you will wish to initiate such proposals for submission at the company's next annual meeting."

In recent years, the question of cumulative voting in the election of directors has been brought up very frequently. In the past few weeks, stockholders of Western Union Co and the American Telephone & Telegraph Co have defeated such a proposal with large majorities.

PUC Member

Leon Schwartz, Nanticoke, has been named a member of the Pennsylvania Public Utility Commission.

FINANCIAL BRIEFS

Public Service Electric & Gas Co has requested N. J. Public Service Commission approval to sell $40 million in debentures, competitively, and 700,000 common shares to be negotiated through underwriters . . . **Public Service Co of Indiana** has asked Public Service commission approval to sell $25 million in bonds and $20 million in preferred stock . . . Robert W. Baird & Co is making a secondary offering of 10,000 common shares of **Madison Gas & Electric Co** at 32¼ . . . **Wellington Fund** has bought the following public utility common stocks in the first quarter of 1952: 2,100 shares of Florida Power & Light Co; 7,500 shares of Kansas City Power & Light Co; 30,000 shares of Pacific Gas & Electric Co; 4,000 shares of South Carolina Electric & Gas Co, and 7,500 shares of Texas Utilities Co.

Southern Colorado Power Co has asked Colorado Public Utilities Commission approval to sell $1 million first mortgage bonds due 1977.

Today in Utility Finance

YIELDS (%)

Quality	Bonds			Preferred Stocks			Common Stocks		
	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
DATE									
1952									
May 1	2.94	2.97	3.10	4.03	4.15	4.60	5.42	6.08	6.61
April 24	2.93	2.96	3.10	4.03	4.16	4.61	5.42	6.06	6.59
					[illegible]	[illegible]	[illegible]		
1st 1952	2.95	2.99	3.13	4.11	4.29	4.66	5.35	6.03	6.47
4th 1951	3.02	3.07	3.21	4.32	4.50	4.91	5.42	6.18	6.84
3rd 1951	2.87	2.91	3.04	4.05	4.27	4.61	5.52	6.24	7.05
2nd 1951	3.02	3.11	3.23	4.11	4.37	4.68	5.73	6.38	7.37

Data: Reis & Chandler, Inc

EARNINGS

Company	Period Months	Ended	Net Income 1952	Net Income 1951	Earnings Per Common Share 1952	Earnings Per Common Share 1951
Arkansas Power & Light	12	Mar.	$4,993,380	$4,603,765	$....	$....
Consolidated Gas Electric Light of Baltimore	12	Mar.	9,127,315	10,036,800	1.63 (b)	1.87 (b)
Delaware Power & Light	12	Mar.	3,248,745	3,781,666	1.64	1.98
Gulf States Utilities	12	Mar.	6,123,458	6,111,732	1.67 (a)	1.84 (a)
Middle South Utilities, Consolidated	12	Mar.	11,211,467	10,416,059	1.69 (a)	1.72 (a)
New Jersey Power & Light	12	Mar.	1,377,270	1,327,517	....	....
North American, Consolidated	12	Mar.	11,420,000	12,038,000	1.33	1.40
Philadelphia Electric	12	Mar.	26,167,763	28,137,284	2.09 (a)	2.28 (a)
Public Service Company of Oklahoma	12	Mar.	4,197,510	3,819,346	....	....
Southern California Edison	12	Mar.	20,234,289	18,629,991	3.03	2.82
Southwestern Gas & Electric	12	Mar.	3,429,671	3,243,163	....	....
Texas Electric Service	12	Mar.	7,128,851	5,511,817	....	....
Texas Power & Light	12	Mar.	6,544,153	5,569,208	....	....
Virginia Electric & Power	12	Mar.	11,255,561	10,130,275	1.79 (b)	1.85 (b)
			1951	1950	1951	1950
Carolina Power & Light			$5,687,375	$5,686,847	$....	$....
Los Angeles Department of Water & Power—power system			15,400,627	14,970,068	....	....
Public Service Co of Oklahoma			3,963,117	3,716,936	....	....

NOTES—The figures shown for the last three companies have been audited; (a) On shares outstanding and end of each period; and (b) On average number of shares outstanding during the period.

FINANCING

Company and Description	Amount of Offering (000)	Offering Price	Yield to Public
WEEK OF MAY 1-7			
Bonds			
Wisconsin Electric Power—1st mtg 3¼% 1982	$12,500	101.736%	3.16%
Texas Electric Service—1st mtg 3¼% 1982	8,000	101.931	3.15
Texas Electric Service—debentures 3¼% 1977	5,000	101.955	3.26
Common Stock			
South Carolina Electric & Gas—417,719 sh (being offered to commonholders on 1-for-5 basis, record April 15 to expire May 1)	$4,021	$9.625	6.23%
New England Electric System—920,573 sh (being offered to commonholders on 1-for-8 basis, record April 28 to expire May 26)	11,622	12.625	6.34
WEEK OF MAY 8-14			
Bonds			
Worcester County Electric—1st mtg 1982	$4,000	.....	.....
Common Stock			
New York State Electric Gas—300,000 sh (b)	.....	.....	.....
SCHEDULE FOR MAY			**Bid Date**
Bonds			
Central Vermont Public Service—1st mtg 1982	$1,500	.....	May 19
Iowa Power & Light—1st mtg 1982	10,000	.....	May 21
Preferred Stock			
Dallas Power & Light—100,000 sh no par	.....	.....	May 26
Long Island Lighting—100,000 sh $100 par	$10,000	.....	(c) May 27
Common Stock			
Central Vermont Public Service—108,900 sh (to be offered to commonholders on 1-for-6 basis; New England Public Service, owner of 35.5% of common to waive its subscription rights; price will be determined by competitive bidding)	.....	.....	May 19
Iowa Power & Light—226,928 sh (to be offered to commonholders on 1-for-7 basis, record about May 14 to expire May 28)	.....	.....	.....
Wisconsin Electric Power—702,486 sh (to be offered to commonholders on 1-for-5 basis)	.....	.....	.....
Virginia Electric & Power—494,642 sh (to be offered to commonholders on 1-for-10 basis (a), record May 23 to expire June 9)	.....	.....	.....

Notes—(a) Stockholder allowed oversubscription privileges; (b) First Boston Corp underwriter, and (c) W. C. Langley & Co group, underwriters.

Florida Power's Earnings Up 17¢ for First Quarter

Quarterly earnings of Florida Power Corp show an increase of 17¢ per common share in the first quarter this year compared to the same period last year, according to report just issued.

"The 56¢ per share we earned the first quarter was due mainly to the efficiency and economy of operations; increased revenue was only partly responsible for this gratifying showing," said E. K. IlgenFritz, vice president and treasurer.

On April 4th the company compromised its long-standing rate case with the Pinellas Utility Board by agreeing to refund approximately $1.2 million of escrowed funds. This action was taken at the direction of the Florida Railroad and Public Utilities Commission who then entered an order permitting Florida Power to apply a 14½% billing adjustment on the company's residential and commercial rates in Pinellas County. This makes the application of the billing adjustment system-wide, but with a slightly lower base rate for Pinellas County customers. IlgenFritz pointed out that this newest rate relief would increase the company's per share earnings approximately 29¢ on a twelve months basis.

The full effect of the rate relief will not show until May operations are announced, but the utility executive stated that Florida Power is now utilizing an increased amount of highly efficient generation equipment and that the coming months would see new equipment on the lines.

REGULATION

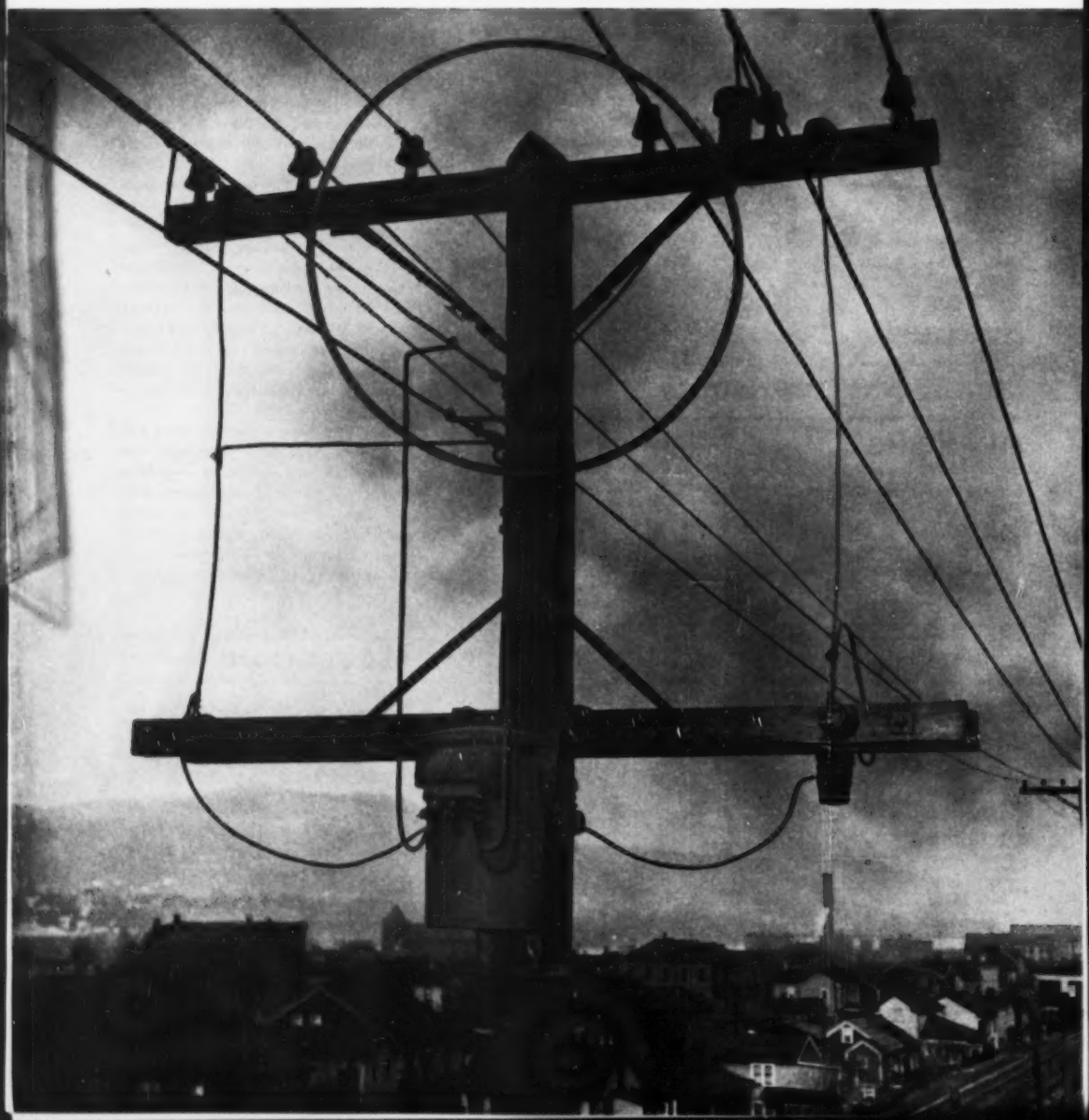
Wisconsin Electric Power Co has received Public Service Commission approval to boost rates $2,223,000 annually. Firm sought $3.5-million hike.

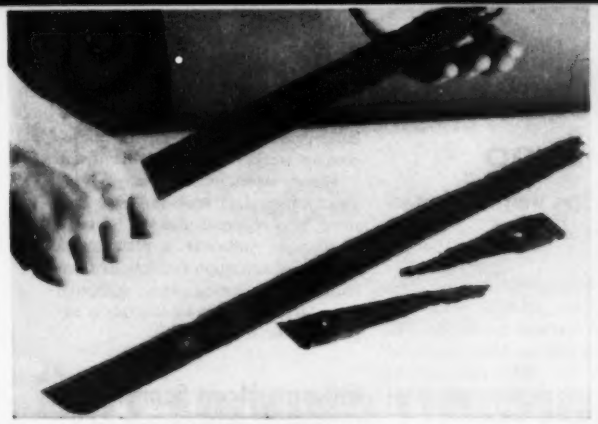
For interesting special bulletin on "The Best Way to Condition the Public for a Rate Increase," write Reddy Kilowatt Service, 50 Church St., New York 7.

Delaware Power & Light Co is planning to file a rate application with the Public Service Commission shortly to offset operating cost increases.

SPIRAKORE® transformers give extra years of service

Crossarm braces eaten away but...





CORRODED CROSSARM BRACES illustrated above provide dramatic evidence of the corrosive effects of industrial smog.

TYPICAL SPIRAKORE INSTALLATION showing corrosive atmosphere successfully resisted by finish on Spirakore transformers.

finish on G-E Spirakore* transformers resists corrosive "industrial smog"

Smoke, soot, grit, and corrosive gases belching from industrial stacks in the Ohio River Valley, create an almost perpetual "industrial smog" that subjects electrical equipment finishes to continual attack.

As a result the local electric utility reports frequent instances where the corrosive atmosphere has eaten completely thru crossarm braces and other pole-line hardware. Yet, even under these conditions, the company obtains excellent service from the finish on G-E Spirakore transformers.

Spirakore finishes stand up because of the *extra* precautions we take in manufacture. We shot blast, completely, each transformer tank. And we use zinc paint *under* all parts to be welded. Then, we apply two *baked-on* coats; a rust-inhibiting primer; and a finish coat of Melaglyp, a superior synthetic resin paint made with melamine-modified Glyptal* alkyd-resin.

Just one of many Spirakore advantages. With G-E Spirakore transformers, besides better paint, you get savings in size and weight due to recent improvements in core-steel quality and construction methods. You get improved impulse strength. You get sealed-tank construction for longer transformer oil life, and improved accessibility even with complete sealing.

For complete information on these and the many other reasons why G-E Spirakore transformers give extra years of service write for Bulletin GEA-4885 and GEA-5400. *General Electric Company, Schenectady 5, N. Y.*

*Registered Trademark of the General Electric Company

BETTER FINISH on Spirakore transformers results from melaglyp paint, a superior synthetic resin paint developed in General Electric laboratories.

402-120

GENERAL ELECTRIC

Lead Price, Demand Drop

Few users buy metal at 17¢ a lb but wait for further decline. Reduction may bring back import duty

Refined lead has dropped to 17¢ a lb, becoming the first of the major nonferrous metals to fall below government-imposed ceiling prices. To date, most lead users have reacted to the price cut by simply not buying, believing the price will go still lower—perhaps down to a 14-16¢ range.

Cuts Price . . . The price cut was initiated by American Smelting & Refining Co when the company first lowered the price from 19¢ to 18¢, then to 17¢, New York.

Several factors have influenced the price cut. They are: Sharply increased supplies of foreign lead to U. S. consumers, bigger supplies of scrap, falling off in demand both here and abroad, and a temporary cessation of stockpile buying.

During most of 1951 foreign users of the metal were drawing large tonnages of the metal away from the U. S. by paying higher prices than American users. Prices paid abroad were reported as high as 23¢ a lb compared with the U. S. ceiling of 19¢.

Stopped Buying . . . An abrupt reversal of foreign demand occurred in the last few months of 1951. Foreign consumers stopped buying at the high prices which were then around 21½¢ to 22¢ a lb because they lacked dollars to buy the metal, their own business had declined, and their inventories had increased after a year of heavy buying. The result was foreign origin metal was being offered in large quantities in the U. S.

In the past few months the price of lead abroad slumped to the domestic ceiling of 19¢ and just recently the foreign metal was offered to U. S. makers of lead products at 17½¢ a lb, New York. In Europe the price is around 17¢ to 17½¢, c.i.f. European port.

May Reimpose Duty . . . In mid-February the import duty of 1 1/16¢ a lb on U. S. foreign lead imports was suspended until March 31, 1953. However, this duty will become effective again if any calendar month the price of lead averages below 18¢ a lb. The zinc duty also has been suspended until March 31, 1953, and will be reimposed if the price averages below 18¢ a lb in a calendar month.

The sharp price decline for lead is expected to have an effect on the consumer-buying attitude for zinc and other nonferrous metals. Fear has been expressed that the increasing supply of zinc and restrictions on use may result ultimately in lower prices for this metal and a surplus.

The zinc industry is keeping a close watch on the steel strike situation as the steel industry is an important buyer of prime western zinc for galvanizing purposes. Steel firms have already notified zinc producers to defer delivery on metal due them over coming weeks because of the strike.

These developments may bring about removal of lead and zinc controls. It is reported that the National Production Authority is planning to remove all allocation restrictions from these metals during May, although some form of inventory controls is expected to be retained.

Edwards Head Scores Government Regulation

The little business man is in more immediate danger of being crushed and absorbed by government than by big competitors, R. Stafford Edwards, president of Edwards Co, Norwalk, Conn., declared recently.

This warning was voiced by Edwards at the company's 80th anniversary press conference luncheon at the Hotel Biltmore, New York. The Edwards firm manufactures electric signaling equipment.

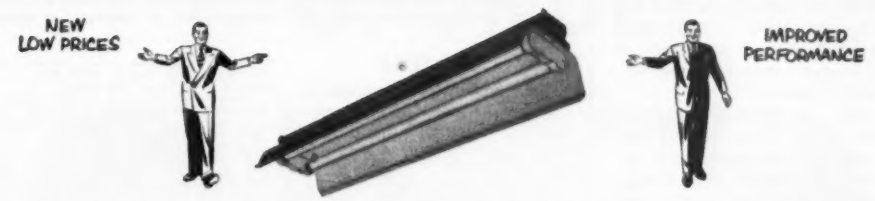
Speaking before officials of New

Southern States Equipment Expands

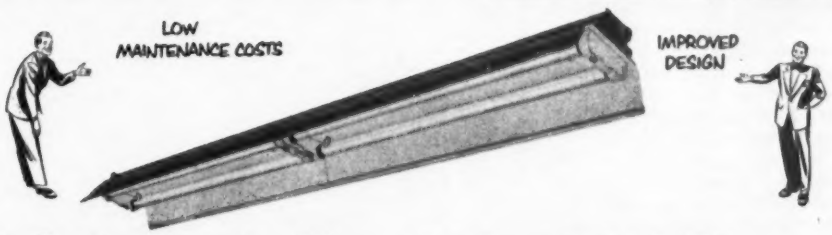
Olan Richardson, president of Southern States Equipment Corp, Hampton, Ga., breaks ground for a new addition to the present facilities of the firm, manufacturers of high voltage electrical equipment, mechanical devices, and textile machine parts. The new building, scheduled for completion in the fall, will be a steel and masonry structure occupying approximately 25,000 sq ft.

Southern States officials witnessing the ceremony are (left to right) C. W. Walter, sales manager, Mechanical Division; W. C. Mitchell, vice president; Glenn Mitchell, production manager; T. E. Curtis, chief engineer; and T. A. Burdeshaw, sales manager, Electrical Division.

NOW YOU CAN OFFER AT NEW LOW PRICES



ALL-AROUND LIGHTING IMPROVEMENTS



with Sylvania's New Industrial Fixtures

Announcing 222 New Industrial Fluorescent Fixtures at an amazingly new low cost. All are engineered to meet every lighting need in any type plant for any level of illumination. Customers make additional savings since new design also cuts maintenance costs.

Reasons for Sylvania's flexibility and lower cost

Simplified designing is the basic reason for the success of this new line. With one skillfully engineered reflector and two top housings, Sylvania lighting experts have developed 6 interlocking "family" groups of 24 standard fixtures each. These, with optional variations, making up 222 different types, offer a variety and flexibility never before possible.

And, because this line requires comparatively few different parts, die costs and assembly costs are held way down. These savings are now passed along to you in lower prices.

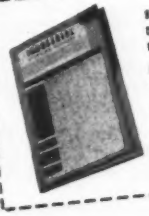
You'll want all the facts about this splendid new fixture line. The coupon brings you new folder and data sheets for your file.

Urge your Electrical Contractor friends to join the New 1952 Qualified Lighting Contractor program and display this emblem. Backed by national advertising and big direct mail campaigns, it directs business to their doors.

MAIL THE COUPON NOW!

SYLVANIA

FLUORESCENT TUBES, FIXTURES, SIGN TUBING, WIRING DEVICES; LIGHT BULBS; RADIO TUBES; TELEVISION PICTURE TUBES; ELECTRONIC PRODUCTS; ELECTRONIC TEST EQUIPMENT; PHOTOLAMPS; TELEVISION SETS



Sylvania Electric Products Inc.
Dept. L-3105, 1740 Broadway
New York 19, New York

Please send me illustrated folder and data sheets on the new line of Sylvania Industrial Fixtures.

Name .....

Street .....

City ..... Zone ..... State .....

York Central Railroad, Western Union Telegraph Co, E. I. du Pont de Nemours & Co, Western Electric Co, Inc, Lever Bros Co, and New York Telephone Co, Edwards asserted that the American system of business is one in which great and small exist in mutual harmony, mutual dependency, and mutual respect.

He said, "We have little to worry about as a result of a contest between large and small businesses. But we have reached a stage where both large and small business must worry about being regulated to the point of extinction by government."

In referring to spokesmen close to the authorities, the company official said, "We seldom learn who they are, but there is hardly a day that doesn't see one of these spokesmen predicting dire consequences for the near future." He said one message that spokesmen have been very busy with for many years is that big business must inevitably swallow little business. In answer to the message, he pointed out that most small companies are healthy and thriving because the larger industries in the United States depend upon them for products and parts they need. The smaller industries want the larger industries to be healthy and prosperous because it is the larger outfits that provide the largest market for the products of the small companies.

"Edwards Co has been supplying big companies with Edwards products for 80 years," he added. "This doesn't sound like anybody being crushed by large corporations."

MANUFACTURING BRIEFS

Aluminum Co of Canada, Ltd, has filed an issue of $90 million sinking-fund debentures with the Securities and Exchange Commission. Aluminum Co debentures, which are to mature in 1970, will be offered publicly about May 21 through a group of underwriters headed by First Boston Corp, New York.

Canadian Westinghouse Co, Ltd, has sold privately $20 million of new 4½% sinking fund debentures through First Boston Corp, New York, and A. E. Ames & Co, Ltd. The bonds will come due in 1969. The borrowing represented Canadian Westinghouse's first through an offering of bonds or debentures.

NEW ELECTRICAL CONSTRUCTION

A weekly selection of U. S. electrical construction projects announced by private and government utility systems involving more than $70,000. Also listed are major industrial and construction jobs where electrical work is indicated or implied.

UTILITIES

Proposed Construction

California—Pacific Gas & Electric Co., N. R. Sutherland, vice pres. and genl. mgr., 245 Market St., San Francisco, 2 powerhouses to supplement hydro-electric facilities at Shasta Co. $45,000,000.

Fla., Opa Locka—Dpt. Navy, Officer in Charge of Construction, Box 365, Naval Base, S. C., rehabilitation electrical distr. system, NOY 72959; rehabilitation steam distr. system, NOY 72947, at Marine Corps Air Station.

Ga., Marietta—Lockheed Aircraft Corp., Marietta, radar and electronics bldg. and flight operations bldg. Approx. $2,000,000.

Ga., Washington—Wilkes Telephone & Electric Co., Washington, Ga., warehouse and offices. Plans deposit $10. Southern Engr. Co., 1000 Crescent Ave., Atlanta, Ga., archts.

Indiana—Indiana & Michigan Electric Co., 122 E. Wayne St., Fort Wayne, modernize 33,000 volt transmission line between Fort Wayne and Churubusco, about 7 mi.; also 4¼ mi. transmission line connecting Columbia and Whitley Sub-station, $150,000.

Ind., Dunkirk—I & M Electric Co., Div., Headquarters, Muncie, transformer station near here, $350,000.

Minn., Aurora—Erie Mining Co. (Bethlehem Steel Corp, Youngstown Sheet & Tube Co and Dalton Ore Co.), c/o Pickands Mather & Co Union Commercial Bldg., Cleveland, O., taconite development, processing facilities, town power plant, railroad, $300,000,000.

Missouri—Central Electric Power Cooperative, 400 E. High St., Jefferson City, approx. 46.8 mi. rural distr. lines, 69 kv line Contr. V, Proj. Mo 71 A-Moniteau, Osage, Cole and Miller Counties. Plans deposit $10. Frank Horton & Co., Lamar, engrs.

Missouri—Sho-Me Power Co-operative, Marshfield, 7 steel substations, switching station, Texas, Ozark, Webster, Laclede, Camden, Pulaski, and Wright Counties. Plans deposit $10, Frank Horton & Co., Lamar, consult. engrs.

Nebraska and South Dakota—Nebraska Public Power System, Columbus, Neb., transmission line from Ft. Randall Dam, near Lake Andes, S. D., to Grand Island, Neb., $500,000; transmission line from Gaven Point Dam near Yankton, S. D., to Belden, Neb., $150,000. Paul Hampton, c/o owner, ch. engr.

Nebraska—Cherry-Todd Electric Co-operative, Valentine, 410 mi. rural distr. lines, Mellete and Todd Counties, $500,000. Flahart & Colgan, Rapid City, S. D., engrs.

Neb., Ogallala—City, Ogallala, municipal light and power sys., $100,000. Fulton & Cramer, 922 Trust Bldg., Lincoln, consult. engrs.

New Mexico—Continental Divide Electric Co-operative, Grants, 70 mi. rural distr. lines, sys. imprvs. and related facilities, McKinley Co., $585,000.

N. Y., Brooklyn—P. Wks. Office, Third Naval Dist., 90 Church St., New York. Zone 1, electric distr. sys. at New York Naval Shipyard, NOY 72109, Spec. No. 24290. Plans deposit $10.

N. C., Morganton—State Hospital Bd. Control, Morganton, electric distr. sys. at Morganton State Hospital. Plans deposit $25. Wiley & Wilson, Peoples Bank Bldg., Lynchburg, Va., engrs.

N. C., Winston-Salem—Western Electric Co., Chatham Rd., mfg. plant, $750,000.

O., Cleveland—Cleveland Electric Illuminating Co., 75 Public Square, 103,000 sq. ft. warehouse and garage addns., E. 146 St. near Miles Ave., $1,145,400.

O., Galion—City, City Hall, imprv. municipal light plant, incl. 10,000 kw steam turbine generating unit, block type distr. sys., 2 new sub-stations, $2,752,000.

Okla., Kingfisher—City, exten. municipal power plant, $100,000. L. J. Beard, Kingfisher, city engr.

Oregon—Bonneville Power Admin., 827 N. E. Oregon St., Portland, control house at Redmond Sub-station, Inv. 6441. Plans deposit $25. L. C. Stewart, c/o owner, engr.

Oregon—Bonneville Power Admin., 827 N. E. Oregon St., Portland, Redmond Sub-station, Inv. 6435. Plans deposit $25. L. C. Stewart, c/o owner, engr.

Pa., Phila.—Western Electric Co., 300 E. Allegheny Ave., mfg. bldg. and office addn. $350,000. The Ballinger Co., 121 N. Broad St., archt.

South Dakota—Bureau Reclamation, Dpt. Interior, Billings, Mont., fifteen 115,000-volt horn-gap switches for Armour, Brookings, Beresford, Flandreau, Groton, Summit and Tyndall sub-stations, Missouri River Basin Proj., Spec. 600S-93.

Tex., Freeport—Dow Chemical Co., Freeport, addnl. electric power facilities, $26,508,300.

Wash., Bellingham—Puget Sound Power & Light Co., Skinner Bldg., Seattle, Zone 1, sub-station, $132,000.

Wash., Bremerton—P. Wks. Officer, Thirteenth Naval Dist., 1611 W. Wheeler St., Seattle, 11.5-kv. sub-station at Puget Sound Naval Shipyard, Specs. 23196.

Wyoming—Bureau Reclamation Dpt. Interior, P. O. Box 1111, Thermopolis, construct Boysen Switchyard to Piolt Butte 34.5 kilovolt transmission line and Boysen Switchyard to 4.16-kilovolt camp circuit, Boysen Unit, Missouri River Basin Proj. at Boysen Dam near Thermopolis. Spec. DC 3712. L. N. McClellan, Bldg. 1-A, Denver Federal Center, Denver, Colo., ch. engr.

Wyoming—Tri-County Electric Assn., Sundance, 141 mi. rural distr. lines, 10 mi. transmission line, communication facilities and completion previously aproved construction, Crook Co., $280,000. H. S. Nixon Eng. Co., W.O.W. Bldg., Omaha, Neb., consult. engr.

Low Bidders & Contracts Awarded

Arizona—J. & J. Constr. Co., 1801 Petroleum Bldg., Oklahoma City, Okla., CA, $91,120, 37.5 mi. of 14.4 and 24.9 kv. rural dist. line, Pima Co. Trico Electric Co-operative, 3800 Oracle Rd., Tucson, Ariz. J. V. Swain, c/o owner, engr.

Conn., Newington—Hartford Electric Light Co., 266 Pearl St., Hartford, Conn., Separate Contracts, electric substation, West Side-West Hartford Rd.

Utah—Power Line Constr. Co., Box 1215, Pocatello, Idaho, CA, $154,736, 38.8 mi. 69 kv transmission line, Duchesne Co.

INDUSTRIAL, COMMERCIAL & PUBLIC BUILDINGS

Proposed Construction

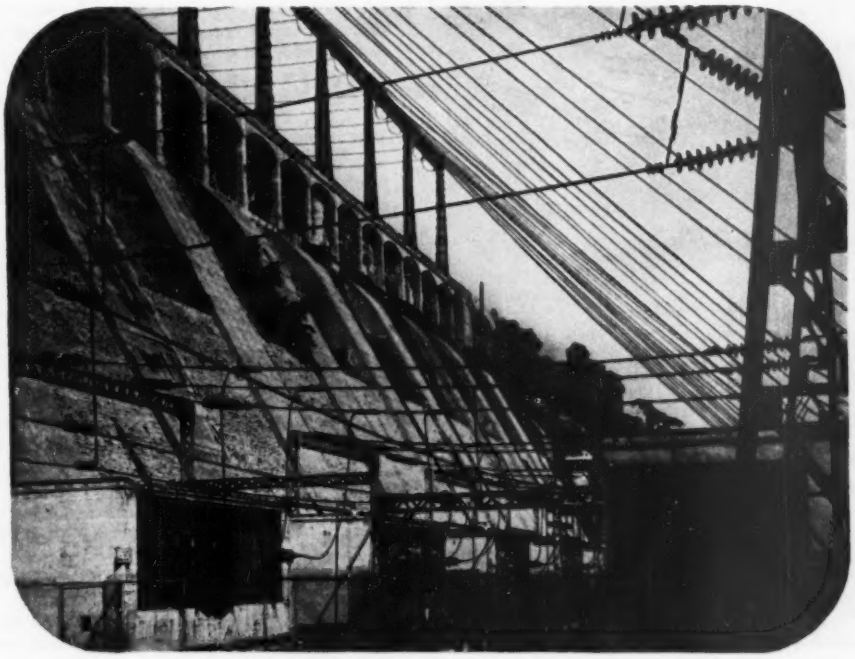
La., Luling—Lion Oil Co., El Dorado, Ark., Barton Chemical Plant, approx. 14 mi. north of New Orleans, on Mississippi River, $21,000,000.

O., Bedford—Meadowbrook, Inc., 9801 Brookpark Rd., Cleveland, regional shopping center, incl. 60 stores; 1,100 apartment units between Warrensville Center and Northfield Rds. $26,000,000.

Tex., Arlington—General Motors Corp., c/o Argonant Realty Div., G. M. Smitten, General Motors Bldg., Detroit, Mich., mfg. and assembly plant, 225-acre site south of here, $18,000,000. Wyatt C. Hedrick, 904 Fort Worth Ave., Dallas, archt.

Tex., San Antonio—U. S. Govt., Dpt. of Air Force, The Pentagon, Wash. 25, D. C., aeromedical center, at Brooks Field, $30,000,000.

V. C. CABLE



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ELECTRICAL BUSINESS OUTLOOK

Utilities Will Up Pay . . .

. . . but increases will be nowhere near that given steel workers. Industry wages have been rising steadily, and fringe benefits are usual

Utilities won't have to grant wage increases anything like those being given in the steel industry this year. But it's no use denying that the big package won by steel workers is going to make unions everywhere more aggressive.

The steel wage increase is a whopper. No doubt about that. It's more than any other union has gotten in one bite during the period of so-called wage stabilization. But steel is a special case, too. The union hadn't had an increase since December, 1949.

Steel Workers Get Boost to Catch Up . . . To catch up, steel workers will get 15¢ per hour more starting July 1, if the Wage Board's recommendations are adopted. Most utility workers have already picked up that much—or more—in gradual wage increases during 1950 and 1951.

In electrical manufacturing, too, wages have risen 10 to 15¢ per hour during the same period. Both electric utilities and electrical manufacturers already grant the longer vacations and extra holidays recommended by the Wage Board for steel workers.

The key fact about pay rates is this: Power companies have granted steady wage increases to keep their workers a little ahead of the cost of living all the time (chart). The steel workers' pay is catching up with living costs in one bite.

Living Cost to Set Utility Pay . . . So for the rest of this year, utility wages are more likely to be governed by the trend of living costs than by the amount of wage boosts granted in the steel industry or other industries which follow the steel pattern.

What about the cost of living? In the first quarter, it dropped, for the first time since Korea. But this was due to some unusual—and largely seasonal—weakness in food prices. Over the next six months food prices and living costs are likely to show some seasonal rise.

However, the index probably won't rise more than 1% or 2% during the rest of 1952. And there will probably be some decline toward the end of the year when large food supplies will come to market. The outlook is particularly favorable for meat supplies. And when there's plenty of meat, the index usually doesn't go up much.

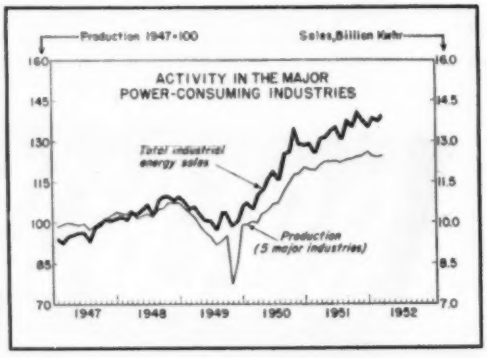
Other Increases Won't Equal Steel Boost . . . Some people are arguing that the steel wage increase will start another spiral of higher wages, higher consumer demand and higher living costs, like the earlier postwar rounds. But that's not a good bet. The wage increase will spread. But it won't be as much in other industries.

Price increases will be still harder to pass on. Consumer goods are hard to sell right now. The most rising costs will do is prevent further price cuts. And food supplies are increasing more rapidly than in the early postwar years.

All this means that, as a matter of arithmetic, there's nothing in the steel wage settlement to indicate another big round in the electrical industries. And the trend of living costs doesn't indicate big pay boosts either.

Unions Always Have an Argument . . . But these aren't the only arguments unions can use in negotiating. Experience shows that when living costs flatten out, pressure builds up for higher pensions and other fringe benefits. And if profits are good, unions stress the ability to pay.

This last argument may be the big one in 1952. In the steel case, the government pushed the idea that profits are high enough to absorb big wage boosts. And other unions are bound to be impressed with the success steel workers achieved on this basis.



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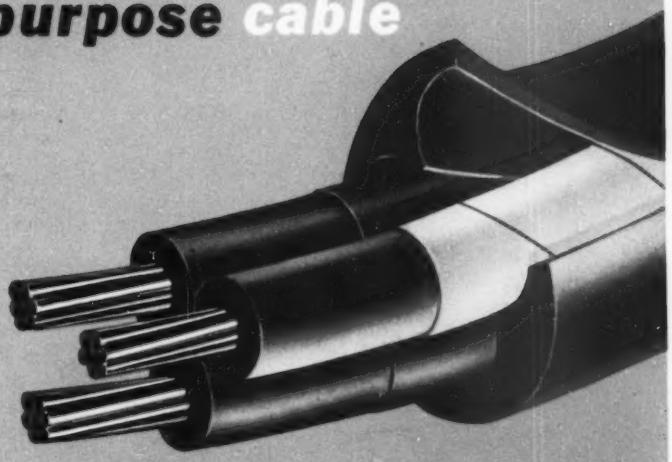

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